

65 70 75 80
 Ala Leu Pro Pro Xaa Ser Thr Lys Ala Ser Leu Ser Gly Lys Gly Tyr
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 Arg Thr Gln Cys Ser His Gln Thr Ala Ala Trp Gly Thr Pro Ser Thr
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 Glu Arg Ser
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<210> 3003
 <211> 474
 <212> DNA
 <213> Homo sapiens

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<210> 3004
 <211> 155
 <212> PRT
 <213> Homo sapiens

<400> 3004
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 35 40 45
 Leu Leu Val Ser Val Leu Glu Gln Gly Leu Pro Pro Ser His Arg Val
 50 55 60
 Ile Trp Leu Gln Ser Val Arg Ile Leu Ser Arg Asp Arg Asn Cys Leu
 65 70 75 80
 Asp Pro Phe Thr Ser Arg Gln Ser Leu Gln Ala Leu Ala Cys Tyr Ala
 85 90 95
 Asp Ile Ser Val Ser Glu Gly Ser Val Pro Glu Ser Ala Asp Met Asp
 100 105 110
 Val Val Leu Glu Ser Leu Lys Cys Leu Cys Asn Leu Val Leu Ser Ser
 115 120 125
 Pro Val Ala Gln Met Leu Ala Ala Glu Ala Arg Leu Val Val Lys Leu

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Thr Glu Arg Val Gly Leu Tyr Arg Glu Arg Ser
145 150 155

<210> 3005
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<213> Homo sapiens

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<210> 3006
<211> 266
<212> PRT
<213> Homo sapiens

<400> 3006
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Asp Gln Tyr Val Asn Lys Arg Tyr Pro Gly Leu Val Lys Ile Val Arg
35 40 45
Asn Ser Arg Arg Glu Gly Leu Ile Arg Ala Arg Leu Gln Gly Trp Lys
50 55 60
Ala Ala Thr Ala Pro Val Val Gly Phe Phe Asp Ala His Val Glu Phe


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65          70          75          80
Asn Thr Gly Trp Ala Glu Pro Ala Leu Ser Arg Ile Arg Glu Asp Arg
          85          90          95
Arg Arg Ile Val Leu Pro Ala Ile Asp Asn Ile Lys Tyr Ser Thr Phe
          100          105          110
Glu Val Gln Gln Tyr Ala Asn Ala Ala His Gly Tyr Asn Trp Gly Leu
          115          120          125
Trp Cys Met Tyr Ile Ile Pro Pro Gln Asp Trp Leu Asp Arg Gly Asp
          130          135          140
Glu Ser Ala Pro Ile Arg Thr Pro Ala Met Ile Gly Cys Ser Phe Val
          145          150          155          160
Val Asp Arg Glu Tyr Phe Gly Asp Ile Gly Leu Leu Asp Pro Gly Met
          165          170          175
Glu Val Tyr Gly Gly Glu Asn Val Glu Leu Gly Met Arg Val Trp Gln
          180          185          190
Cys Gly Gly Ser Met Glu Val Leu Pro Cys Ser Arg Val Ala His Ile
          195          200          205
Glu Arg Thr Arg Lys Pro Tyr Asn Asn Asp Ile Asp Tyr Tyr Ala Lys
          210          215          220
Arg Asn Ala Leu Arg Thr Ala Glu Val Trp Met Asp Asp Phe Lys Ser
          225          230          235          240
His Val Tyr Met Ala Trp Asn Ile Pro Met Ser Asn Pro Gly Val Asp
          245          250          255
Phe Gly Asp Val Ser Glu Arg Leu Ala Leu
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<210> 3007
 <211> 536
 <212> DNA
 <213> Homo sapiens

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 300
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 360
 cctgcattta ggaatgacaa aggacagatc cctgctgatg ttgttccaga cccagtagat
 420
 atgccgttag agatggctga cgccgcagcc actgctaagg aaatcaagca gatgcttcta
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<210> 3008
 <211> 163
 <212> PRT

<213> Homo sapiens

<400> 3008

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Met Thr Leu Leu His Tyr Thr Cys Lys Ser Gly Ala His Gly Ile Gly
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Asp Val Glu Thr Ala Val Lys Phe Ala Thr Gln Leu Ile Asp Leu Gly
      20           25           30
Ala Asp Ile Ser Leu Arg Ser Arg Trp Thr Asn Met Asn Ala Leu His
      35           40           45
Tyr Ala Ala Tyr Phe Asp Val Pro Glu Leu Ile Arg Val Ile Leu Lys
      50           55           60
Thr Ser Lys Pro Lys Asp Val Asp Ala Pro Cys Ser Asp Phe Asn Phe
65           70           75           80
Gly Thr Ala Leu His Ile Ala Ala Tyr Asn Leu Cys Ala Gly Ala Val
      85           90           95
Lys Cys Leu Leu Glu Gln Gly Ala Asn Pro Ala Phe Arg Asn Asp Lys
      100          105          110
Gly Gln Ile Pro Ala Asp Val Val Pro Asp Pro Val Asp Met Pro Leu
      115          120          125
Glu Met Ala Asp Ala Ala Ala Thr Ala Lys Glu Ile Lys Gln Met Leu
      130          135          140
Leu Asp Ala Val Pro Leu Ser Cys Asn Ile Ser Lys Ala Met Leu Pro
145          150          155          160
Pro Ser Arg

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<210> 3009

<211> 1335

<212> DNA

<213> Homo sapiens

<400> 3009

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240
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360
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420
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600
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660

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cttaagatga acacattgag cagtaaccgg gcaaacatgc tgaaagaagt acagctcatg
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<210> 3010

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3010

Met	Asp	Arg	Ser	Lys	Arg	Asn	Ser	Ile	Ala	Gly	Phe	Pro	Pro	Arg	Val
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Glu	Arg	Leu	Glu	Glu	Phe	Glu	Gly	Gly	Gly	Gly	Gly	Glu	Gly	Asn	Val
			20					25					30		
Ser	Gln	Val	Gly	Arg	Val	Trp	Pro	Ser	Ser	Tyr	Arg	Ala	Leu	Ile	Ser
		35					40					45			
Ala	Phe	Ser	Arg	Leu	Thr	Arg	Leu	Asp	Asp	Phe	Thr	Cys	Lys	Lys	Ile
	50					55					60				
Gly	Ser	Gly	Phe	Phe	Ser	Glu	Val	Phe	Lys	Val	Arg	His	Arg	Ala	Ser
65					70					75				80	
Gly	Gln	Val	Met	Ala	Leu	Lys	Met	Asn	Thr	Leu	Ser	Ser	Asn	Arg	Ala
			85						90					95	
Asn	Met	Leu	Lys	Glu	Val	Gln	Leu	Met	Asn	Arg	Leu	Ser	His	Pro	Asn
		100						105					110		
Ile	Leu	Arg	Phe	Met	Gly	Val	Cys	Val	His	Gln	Gly	Gln	Leu	His	Ala
	115					120						125			
Leu	Thr	Glu	Tyr	Ile	Asn	Ser	Gly	Asn	Leu	Glu	Gln	Leu	Leu	Asp	Ser
	130				135						140				
Asn	Leu	His	Leu	Pro	Trp	Thr	Val	Arg	Val	Lys	Leu	Ala	Tyr	Asp	Ile
145				150						155				160	
Ala	Val	Gly	Leu	Ser	Tyr	Leu	His	Phe	Lys	Gly	Ile	Phe	His	Arg	Asp
			165					170						175	
Leu	Thr	Ser	Lys	Asn	Cys	Leu	Ile	Lys	Arg	Asp	Glu	Asn	Gly	Tyr	Ser

180 185 190
Ala Val Val Ala Asp Phe Gly Leu Ala Glu Lys Ile Pro Asp Val Ser
195 200 205
Met Gly Ser Glu Lys Leu Ala Val Val Gly Ser Pro Phe Trp Met Ala
210 215 220
Pro Glu Val Leu Arg Asp Glu Pro Tyr Asn Glu Lys Ala Asp Val Phe
225 230 235 240
Ser Tyr Gly Ile Ile Leu Cys Glu Ile Ile Val Arg Ile Gln Ala Asp
245 250 255
Pro Asp Tyr Leu Pro Arg Thr Glu Asn Phe Gly Leu Asp Tyr Asp Ala
260 265 270
Phe Gln His Met Val Gly Asp Cys Pro Pro Asp Phe Leu Gln Leu Thr
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Gly Trp Leu Asn Pro Phe
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<210> 3011

<211> 3253

<212> DNA

<213> Homo sapiens

<400> 3011

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<210> 3012

<211> 870

<212> PRT

<213> Homo sapiens

<400> 3012

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			20					25					30		
Leu	Glu	Gln	Asp	Thr	Gln	Gly	Leu	Asp	Gly	Trp	Trp	Leu	Cys	Ser	Leu
			35				40					45			
His	Gly	Arg	Gln	Gly	Ile	Val	Pro	Gly	Asn	Arg	Leu	Lys	Ile	Leu	Val
			50			55					60				
Gly	Met	Tyr	Asp	Lys	Lys	Pro	Ala	Gly	Pro	Gly	Ser	Gly	Pro	Pro	Ala
65					70					75				80	
Thr	Pro	Ala	Gln	Pro	Gln	Pro	Gly	Leu	His	Ala	Pro	Ala	Pro	Pro	Ala
			85					90						95	
Ser	Gln	Tyr	Thr	Pro	Met	Leu	Pro	Asn	Thr	Tyr	Gln	Pro	Gln	Pro	Asp
			100					105					110		
Ser	Val	Tyr	Leu	Val	Pro	Thr	Pro	Ser	Lys	Ala	Gln	Gln	Gly	Leu	Tyr
			115				120					125			
Gln	Val	Pro	Gly	Pro	Ser	Pro	Gln	Phe	Gln	Ser	Pro	Pro	Ala	Lys	Gln
			130				135					140			
Thr	Ser	Thr	Phe	Ser	Lys	Gln	Thr	Pro	His	His	Pro	Phe	Pro	Ser	Pro
145					150				155					160	
Ala	Thr	Asp	Leu	Tyr	Gln	Val	Pro	Pro	Gly	Pro	Gly	Gly	Pro	Ala	Gln

165 170 175
Asp Ile Tyr Gln Val Pro Pro Ser Ala Gly Met Gly His Asp Ile Tyr
180 185 190
Gln Val Pro Pro Ser Met Asp Thr Arg Ser Trp Glu Gly Thr Lys Pro
195 200 205
Pro Ala Lys Val Val Val Pro Thr Arg Val Gly Gln Gly Tyr Val Tyr
210 215 220
Glu Ala Ala Gln Pro Glu Gln Asp Glu Tyr Asp Ile Pro Arg His Leu
225 230 235 240
Leu Ala Pro Gly Pro Gln Asp Ile Tyr Asp Val Pro Pro Val Arg Gly
245 250 255
Leu Leu Pro Ser Gln Tyr Gly Gln Glu Val Tyr Asp Thr Pro Pro Met
260 265 270
Ala Val Lys Gly Pro Asn Gly Arg Asp Pro Leu Leu Glu Val Tyr Asp
275 280 285
Val Pro Pro Ser Val Glu Lys Gly Leu Pro Pro Ser Asn His His Ala
290 295 300
Val Tyr Asp Val Pro Pro Ser Val Ser Lys Asp Val Pro Asp Gly Pro
305 310 315 320
Leu Leu Arg Glu Glu Thr Tyr Asp Val Pro Pro Ala Phe Ala Lys Ala
325 330 335
Lys Pro Phe Asp Pro Ala Arg Thr Pro Leu Val Leu Gly Ala Pro Pro
340 345 350
Pro Asp Ser Pro Pro Ala Glu Asp Val Tyr Tyr Val Pro Pro Pro Ala
355 360 365
Pro Asp Leu Tyr Asp Val Pro Pro Gly Leu Arg Arg Pro Gly Pro Gly
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Thr Leu Tyr Asp Val Pro Arg Glu Arg Val Leu Pro Pro Glu Val Ala
385 390 395 400
Asp Gly Gly Val Val Asp Ser Gly Val Tyr Ala Val Pro Pro Pro Ala
405 410 415
Glu Arg Glu Ala Pro Ala Glu Gly Lys Arg Leu Ser Ala Ser Ser Thr
420 425 430
Gly Ser Thr Arg Ser Ser Gln Ser Ala Ser Ser Leu Glu Val Ala Gly
435 440 445
Pro Gly Arg Glu Pro Leu Glu Leu Glu Val Ala Val Glu Ala Leu Ala
450 455 460
Arg Leu Gln Gln Gly Val Ser Ala Thr Val Ala His Leu Leu Asp Leu
465 470 475 480
Ala Gly Ser Ala Gly Ala Thr Gly Gly Trp Arg Ser Pro Ser Glu Pro
485 490 495
Gln Glu Pro Leu Val Gln Asp Leu Gln Ala Ala Val Ala Val Gln
500 505 510
Ser Ala Val His Glu Leu Leu Glu Phe Ala Arg Ser Ala Val Gly Asn
515 520 525
Ala Ala His Thr Ser Asp Arg Ala Leu His Ala Lys Leu Ser Arg Gln
530 535 540
Leu Gln Lys Met Glu Asp Val His Gln Thr Leu Val Ala His Gly Gln
545 550 555 560
Ala Leu Asp Ala Gly Arg Gly Gly Ser Gly Ala Thr Leu Glu Asp Leu
565 570 575
Asp Arg Leu Val Ala Cys Ser Arg Ala Val Pro Glu Asp Ala Lys Gln
580 585 590
Leu Ala Ser Phe Leu His Gly Asn Ala Ser Leu Leu Phe Arg Arg Thr

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Lys Ala Thr Ala Pro Gly Pro Glu Gly Gly Gly Thr Leu His Pro Asn
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Pro Thr Asp Lys Thr Ser Ser Ile Gln Ser Arg Pro Leu Pro Ser Pro
625      630      635      640
Pro Lys Phe Thr Ser Gln Asp Ser Pro Asp Gly Gln Tyr Glu Asn Ser
      645      650      655
Glu Gly Gly Trp Met Glu Asp Tyr Asp Tyr Val His Leu Gln Gly Lys
      660      665      670
Glu Glu Phe Glu Lys Thr Gln Lys Glu Leu Leu Glu Lys Gly Asn Ile
      675      680      685
Thr Arg Gln Gly Lys Ser Gln Leu Glu Leu Gln Gln Leu Lys Gln Phe
      690      695      700
Glu Arg Leu Glu Gln Glu Val Ser Arg Pro Ile Asp His Asp Leu Ala
705      710      715      720
Asn Trp Thr Pro Ala Gln Pro Leu Ala Pro Gly Arg Thr Gly Gly Leu
      725      730      735
Gly Pro Ser Asp Arg Gln Leu Leu Leu Phe Tyr Leu Glu Gln Cys Glu
      740      745      750
Ala Asn Leu Thr Thr Leu Thr Asn Ala Val Asp Ala Phe Phe Thr Ala
      755      760      765
Val Ala Thr Asn Gln Pro Pro Lys Ile Phe Val Ala His Ser Lys Phe
      770      775      780
Val Ile Leu Ser Ala His Lys Leu Val Phe Ile Gly Asp Thr Leu Ser
785      790      795      800
Arg Gln Ala Lys Ala Ala Asp Val Arg Ser Gln Val Thr His Tyr Ser
      805      810      815
Asn Leu Leu Cys Asp Leu Leu Arg Gly Ile Val Ala Thr Thr Lys Ala
      820      825      830
Ala Ala Leu Gln Tyr Pro Ser Pro Ser Ala Ala Gln Asp Met Val Glu
      835      840      845
Arg Val Lys Glu Leu Gly His Ser Thr Gln Gln Phe Arg Arg Val Leu
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Gly Gln Leu Ala Ala Ala
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<210> 3013
 <211> 248
 <212> DNA
 <213> Homo sapiens

<400> 3013
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<210> 3014

<211> 82
<212> PRT
<213> Homo sapiens

<400> 3014
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35 40 45
Lys Ala Ala Gln Gln Ala Gly Trp Gly Leu Leu Leu Ala Arg Arg Trp
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<210> 3015
<211> 438
<212> DNA
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<210> 3016
<211> 103
<212> PRT
<213> Homo sapiens

<400> 3016
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35 40 45
Val Pro Gly Gly Met Val His Pro Ile Phe Leu Glu Pro Val Thr Val

50	55	60
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Arg Cys Val Gly Gln Leu Ser Ile Pro Ser Pro Arg Met Pro Trp Gly		80
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Arg Leu Gln Ala Arg Tyr Val		95
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<210> 3017
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<211> 104

<212> PRT

<213> Homo sapiens

<400> 3018

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			20					25					30		
Gln	Arg	Trp	Ile	Thr	Ile	Gln	His	Arg	Trp	Ser	Ser	Ala	Leu	His	Cys
		35					40					45			
Gln	Gly	Leu	Thr	Pro	Thr	Pro	Gly	Ala	Leu	Pro	Asn	Tyr	Leu	Lys	Val
	50					55				60					
Lys	Ala	Asn	Arg	Ala	Ile	Pro	Gln	Ala	Val	Thr	Ser	Thr	Arg	Leu	Gly
65					70					75				80	
Thr	Thr	Lys	Pro	Pro	Cys	Thr	Ile	Thr	Pro	Pro	Cys	Arg	Ala	Val	Arg
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Ser	Thr	Ser	Pro	Arg	Leu	Pro	Thr								
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<210> 3019

<211> 882

<212> DNA

<213> Homo sapiens

<400> 3019

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<210> 3020

<211> 58

<212> PRT

<213> Homo sapiens

<400> 3020

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			20				25				30				
Asp	Pro	Ala	Arg	Pro	Arg	Phe	Leu	Ala	Cys	His	His	Arg	Gln	Thr	Cys
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Gln	Pro	Leu	Pro	Ala	Gly	Leu	Pro	Gly	Arg						
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<210> 3021

<211> 1008

<212> DNA

<213> Homo sapiens

<400> 3021

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480

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<210> 3022

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3022

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			20					25					30		
His	Cys	Ser	Leu	Asp	Leu	Pro	Gly	Ser	Ser	Asp	Pro	Pro	Gly	Ser	Pro
		35					40					45			
Pro	Val	Ala	Gly	Thr	Thr	Gly	Ala	Leu	Pro	His	Arg	Lys	Ala	His	Phe
	50					55					60				
Leu	Glu	Ala	Glu	Thr	Glu	Ala	Pro	Ser	Gly	Lys	Gly	Asp	Pro	Pro	Gly
65					70				75					80	
Met	Arg	Gly	Ala	Gln	Arg	Ala	Ala	Thr	Trp	Gly	Pro	Thr	Arg		
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<210> 3023

<211> 1834

<212> DNA

<213> Homo sapiens

<400> 3023

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300

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<210> 3024

<211> 347

<212> PRT

<213> Homo sapiens

<400> 3024

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		20						25					30		
Asn	Leu	Ile	Arg	Leu	Asn	Thr	Ala	Glu	Ile	Pro	Cys	Pro	Glu	Pro	Ile
		35				40					45				
Met	Leu	Arg	Ser	His	Val	Leu	Val	Met	Ser	Phe	Ile	Gly	Lys	Asp	Asp
	50				55					60					
Met	Pro	Ala	Pro	Leu	Leu	Lys	Asn	Val	Gln	Leu	Ser	Glu	Ser	Lys	Ala
65				70					75						80
Arg	Glu	Leu	Tyr	Leu	Gln	Val	Ile	Gln	Tyr	Met	Arg	Arg	Met	Tyr	Gln
			85					90					95		
Asp	Ala	Arg	Leu	Val	His	Ala	Asp	Leu	Ser	Glu	Phe	Asn	Met	Leu	Tyr
			100					105					110		
His	Gly	Gly	Gly	Val	Tyr	Ile	Ile	Asp	Val	Ser	Gln	Ser	Val	Glu	His
	115						120					125			
Asp	His	Pro	His	Ala	Leu	Glu	Phe	Leu	Arg	Lys	Asp	Cys	Ala	Asn	Val
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Leu	Phe	Glu	Phe	Val	Thr	Asp	Pro	Ser	Ile	Thr	His	Glu	Asn	Met	Asp
			165					170					175		
Ala	Tyr	Leu	Ser	Lys	Ala	Met	Glu	Ile	Ala	Ser	Gln	Arg	Thr	Lys	Glu
		180					185						190		
Glu	Arg	Ser	Ser	Gln	Asp	His	Val	Asp	Glu	Glu	Val	Phe	Lys	Arg	Ala
	195					200					205				
Tyr	Ile	Pro	Arg	Thr	Leu	Asn	Glu	Val	Lys	Asn	Tyr	Glu	Arg	Asp	Met
	210				215					220					
Asp	Ile	Ile	Met	Lys	Leu	Lys	Glu	Glu	Asp	Met	Ala	Met	Asn	Ala	Gln
225				230					235					240	
Gln	Asp	Asn	Ile	Leu	Pro	Asp	Cys	Tyr	Arg	Ile	Glu	Glu	Arg	Phe	Val
		245					250						255		
Arg	Ser	Ser	Glu	Gly	Pro	Cys	Thr	Leu	Glu	Asn	Gln	Val	Glu	Glu	Arg
		260					265					270			
Thr	Cys	Ser	Asp	Ser	Glu	Asp	Ile	Gly	Ser	Ser	Glu	Cys	Ser	Asp	Thr
	275					280					285				
Asp	Ser	Glu	Glu	Gln	Gly	Asp	His	Ala	Arg	Pro	Lys	Lys	His	Thr	Thr
	290				295					300					
Asp	Pro	Asp	Ile	Asp	Lys	Lys	Glu	Arg	Lys	Lys	Met	Val	Lys	Glu	Ala
305				310					315					320	
Gln	Arg	Glu	Lys	Arg	Lys	Asn	Lys	Ile	Pro	Lys	His	Val	Lys	Lys	Arg
		325					330					335			
Lys	Glu	Lys	Thr	Ala	Lys	Thr	Lys	Lys	Gly	Lys					
		340					345								

<210> 3025

<211> 1370

<212> DNA

<213> Homo sapiens

<400> 3025
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120
agctttctgaa gcatctaggt gatcttctta aatctttgac aggaaagagt aggaaacttt
180
ttggcagact ttacctggt gaatggactt gttttagaat caaggaaaag aagagaacat
240
ctcagtgaag aggatattct tcgaaataag gccatcatgg agagtttgag taaaggtgga
300
aacataatgg aacagaattt tgagccgatt cgaagacagt ctcttacacc tctctctcag
360
aacactatta catgggaaga atatatatct gctgaaaatg gaaaagctcc tcatctgggt
420
agagaattgg tgtgcaaaga gagtaagaaa acgttttaaag ctacgatagc catgagccag
480
gaatttccct tagggataga gttattattg aatgttttag aagtagtagc tcccttcaag
540
cactttaaca agcttagaga atttgttcag atgaagcttc ctccaggctt tcttgtaaaa
600
ttagatatac ctgtgtttcc cacaatcaca gccactgtga cttttcagga gtttcgatac
660
gatgaatttg atggctccat ctttactata cctgatgact acaaggaaga cccaagccgt
720
tttcctgac ttttaactgac gtggaaaagg atgccgtcta accaaggaaa gaaaatacag
780
agaccctaga agtggatcca aatagaaggg acaaatgctt tcagtgaaga aaaggaatt
840
acacattgaa tcgacacatc agtaatacga tacagtgaag tgggcctcta ataagaattt
900
cagcgagttt tctgatgtgc catTTTTTgt ctttttaaaa atatacatat tataaatgta
960
atagtttgac acattaatga ccctaagacc tgcgtatgtg aagcagctat gagtgctgtg
1020
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1080
tatctatata tatatctaaa acactcctgg accattaacg taaattaaat gtcttaagag
1140
atatggagcc cttttaaact tgtcatcttt atgcaagggt acatttataa atattccttc
1200
gagctttgtt ttcataaaaat gtaaaactatg taacattatg tatagttcag taatttgaat
1260
gtttgttcaa tataatgaac tagaaggaat gcaattttct gtagatgaat gaaccaaatg
1320
gtaaccatta aacaattgca tttaaaaaaa aaaaaaaaaa aaaaaaaaaa
1370

<210> 3026

<211> 152

<212> PRT

<213> Homo sapiens

<400> 3026

Met Glu Ser Leu Ser Lys Gly Gly Asn Ile Met Glu Gln Asn Phe Glu
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Pro Ile Arg Arg Gln Ser Leu Thr Pro Pro Pro Gln Asn Thr Ile Thr
20 25 30
Trp Glu Glu Tyr Ile Ser Ala Glu Asn Gly Lys Ala Pro His Leu Gly
35 40 45
Arg Glu Leu Val Cys Lys Glu Ser Lys Lys Thr Phe Lys Ala Thr Ile
50 55 60
Ala Met Ser Gln Glu Phe Pro Leu Gly Ile Glu Leu Leu Leu Asn Val
65 70 75 80
Leu Glu Val Val Ala Pro Phe Lys His Phe Asn Lys Leu Arg Glu Phe
85 90 95
Val Gln Met Lys Leu Pro Pro Gly Phe Pro Val Lys Leu Asp Ile Pro
100 105 110
Val Phe Pro Thr Ile Thr Ala Thr Val Thr Phe Gln Glu Phe Arg Tyr
115 120 125
Asp Glu Phe Asp Gly Ser Ile Phe Thr Ile Pro Asp Asp Tyr Lys Glu
130 135 140
Asp Pro Ser Arg Phe Pro Asp Leu
145 150

<210> 3027

<211> 1154

<212> DNA

<213> Homo sapiens

<400> 3027

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atccacgcca aggcccttgg atcgccctg ggtacatccg tctgagccgt tcctttccat
120
cgcagacggc ggcctccgcg gcgctctcca gtcattggact accggcggct tctcatgagc
180
cgggtggtcc ccgggcaatt cgacgacgcg gactcctctg acagtgaata cagagacttg
240
aagacagtca aagagaagga tgacattctg tttgaagacc ttcaagacaa tgtgaatgag
300
aatggtgaag gtgaaataga agatgaggag gaggagggtt atgatgatga tgatgatgac
360
tgggactggg atgaaggagt tggaaaactc gccaaagggtt atgtctggaa tggaggaagc
420
aacccacagg caaatcgaca gacctccgac agcagttcag ccaaaatgtc tactccagca
480
gacaaggctt tacggaaatt tgagaataaa attaatctag ataagctaaa tgttactgat
540
tccgtcataa ataaagtcac cgaaaagtct agacaaaagg aagcagatat gtatcgcatc
600
aaagataagg cagacagagc aactgtagaa cagggtgttg atcccagaac aagaatgatt
660
ttattcaaga tggtagctag aggaatcata acagagataa atggctgcat tagcacagga
720
aaagaagcta atgtatacca tgctagcaca gcaaatggag agagcagagc aatcaaaatt
780

tataaaaactt ctatttttgt gttcaaagat cgggataaat atgtaagtgg agaattcaga
840
tttcgcatg gctattgtaa aggaaaccct aggaaaatgg tgaaaacttg ggcagaaaaa
900
gaaatgagga acttaatcag gctaaacaca gcagagatac catgtccaga accaataatg
960
ctaagaagtc atgttcttgt catgagtttc atcggtaaag atgacatttc ttttcattca
1020
aggcctgcac cactcttgaa aaatgtccag ttatcagaat ccaaggctcg ggagttgtac
1080
ctgcaggtea ttcagtacat gagaagaatg tatcaggatg ccagacttgt ccatgcagat
1140
cgtcggtgag aggc
1154

<210> 3028

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3028

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Asp	Asp	Ala	Asp	Ser	Ser	Asp	Ser	Glu	Asn	Arg	Asp	Leu	Lys	Thr	Val
		20						25					30		
Lys	Glu	Lys	Asp	Asp	Ile	Leu	Phe	Glu	Asp	Leu	Gln	Asp	Asn	Val	Asn
	35					40						45			
Glu	Asn	Gly	Glu	Gly	Glu	Ile	Glu	Asp	Glu	Glu	Glu	Gly	Tyr	Asp	
	50				55					60					
Asp	Asp	Asp	Asp	Asp	Trp	Asp	Trp	Asp	Glu	Gly	Val	Gly	Lys	Leu	Ala
65				70					75					80	
Lys	Gly	Tyr	Val	Trp	Asn	Gly	Gly	Ser	Asn	Pro	Gln	Ala	Asn	Arg	Gln
			85					90						95	
Thr	Ser	Asp	Ser	Ser	Ser	Ala	Lys	Met	Ser	Thr	Pro	Ala	Asp	Lys	Val
			100					105					110		
Leu	Arg	Lys	Phe	Glu	Asn	Lys	Ile	Asn	Leu	Asp	Lys	Leu	Asn	Val	Thr
		115					120						125		
Asp	Ser	Val	Ile	Asn	Lys	Val	Thr	Glu	Lys	Ser	Arg	Gln	Lys	Glu	Ala
	130					135					140				
Asp	Met	Tyr	Arg	Ile	Lys	Asp	Lys	Ala	Asp	Arg	Ala	Thr	Val	Glu	Gln
145					150					155				160	
Val	Leu	Asp	Pro	Arg	Thr	Arg	Met	Ile	Leu	Phe	Lys	Met	Leu	Thr	Arg
			165					170						175	
Gly	Ile	Ile	Thr	Glu	Ile	Asn	Gly	Cys	Ile	Ser	Thr	Gly	Lys	Glu	Ala
		180					185						190		
Asn	Val	Tyr	His	Ala	Ser	Thr	Ala	Asn	Gly	Glu	Ser	Arg	Ala	Ile	Lys
	195						200					205			
Ile	Tyr	Lys	Thr	Ser	Ile	Leu	Val	Phe	Lys	Asp	Arg	Asp	Lys	Tyr	Val
	210					215					220				
Ser	Gly	Glu	Phe	Arg	Phe	Arg	His	Gly	Tyr	Cys	Lys	Gly	Asn	Pro	Arg
225					230					235				240	
Lys	Met	Val	Lys	Thr	Trp	Ala	Glu	Lys	Glu	Met	Arg	Asn	Leu	Ile	Arg
			245					250						255	
Leu	Asn	Thr	Ala	Glu	Ile	Pro	Cys	Pro	Glu	Pro	Ile	Met	Leu	Arg	Ser

2255

260 265 270
His Val Leu Val Met Ser Phe Ile Gly Lys Asp Asp Ile Ser Phe His
275 280 285
Ser Arg Pro Ala Pro Leu Leu Lys Asn Val Gln Leu Ser Glu Ser Lys
290 295 300
Ala Arg Glu Leu Tyr Leu Gln Val Ile Gln Tyr Met Arg Arg Met Tyr
305 310 315 320
Gln Asp Ala Arg Leu Val His Ala Asp Arg Arg
325 330

<210> 3029

<211> 344

<212> DNA

<213> Homo sapiens

<400> 3029

acgcgtgatg cacggaaggg ccttcgggtt ttgcattttc cttatctgct gaccttacag
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ctgaaaagat tcgattttga ttatacaacc atgcatagga ttaaaactgaa tgatcgaatg
120
acatttcccg aggaactaga tatgagtact tttattgatg ttgaagatga aaaatctcct
180
cagactgaaa gttgcactga caggggagca gaaaatgaag gtagttgtca cagtgatcag
240
atgagcaacg atttctccaa tgatgatggg gttgatgaag gaatctgttt tgaaaccaat
300
agtggaaactg aaaagatctc aaaatctgga cctgaaaaga attc
344

<210> 3030

<211> 114

<212> PRT

<213> Homo sapiens

<400> 3030

Thr Arg Asp Ala Arg Lys Gly Leu Arg Phe Leu His Phe Pro Tyr Leu
1 5 10 15
Leu Thr Leu Gln Leu Lys Arg Phe Asp Phe Asp Tyr Thr Thr Met His
20 25 30
Arg Ile Lys Leu Asn Asp Arg Met Thr Phe Pro Glu Glu Leu Asp Met
35 40 45
Ser Thr Phe Ile Asp Val Glu Asp Glu Lys Ser Pro Gln Thr Glu Ser
50 55 60
Cys Thr Asp Arg Gly Ala Glu Asn Glu Gly Ser Cys His Ser Asp Gln
65 70 75 80
Met Ser Asn Asp Phe Ser Asn Asp Asp Gly Val Asp Glu Gly Ile Cys
85 90 95
Phe Glu Thr Asn Ser Gly Thr Glu Lys Ile Ser Lys Ser Gly Pro Glu
100 105 110
Lys Asn

<210> 3031

<211> 567

<212> DNA

<213> Homo sapiens

<400> 3031

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cctccccctt cctattttgc cactgtttac tcgtgcacac cccggatgaa ccgcagattg
120
gttggtcctg atgttattcc cctgccacac atctacggag ctgcaatcaa aggtgtggaa
180
gtgttctgtc ctctggatcc cccgccgcca tatgaagctg tggtagacca gatggaccag
240
gagcagggat cttcattcca aatgtcagaa ggatcagaag ctgctgtgat cccattggat
300
ctgggctgca cacaagtgc tcaagatggg gacattccta acatacctgc cgaagaaaat
360
gcaccacct caactcccag ttcaaccctg gtgcgtccta tcagaagccg gagagccctc
420
ccacccttga ggaccaggtc gaagagtgc cctgtgctcc atccttctga ggagagagct
480
gccccagtgc tcagctgtga agctgcaaca cagactgaaa ggagactgga tctggctgca
540
gtgactctga ggagaggctt gagatct
567

<210> 3032

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3032

Ala	Glu	Glu	Ala	Glu	Asp	His	Gly	Arg	Ile	Pro	Asp	Pro	Asp	Asp	Phe
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Val	Pro	Pro	Val	Pro	Pro	Pro	Ser	Tyr	Phe	Ala	Thr	Phe	Tyr	Ser	Cys
			20					25					30		
Thr	Pro	Arg	Met	Asn	Arg	Arg	Leu	Val	Gly	Pro	Asp	Val	Ile	Pro	Leu
			35				40					45			
Pro	His	Ile	Tyr	Gly	Ala	Arg	Ile	Lys	Gly	Val	Glu	Val	Phe	Cys	Pro
	50					55				60					
Leu	Asp	Pro	Pro	Pro	Pro	Tyr	Glu	Ala	Val	Val	Ser	Gln	Met	Asp	Gln
65					70				75					80	
Glu	Gln	Gly	Ser	Ser	Phe	Gln	Met	Ser	Glu	Gly	Ser	Glu	Ala	Ala	Val
				85				90						95	
Ile	Pro	Leu	Asp	Leu	Gly	Cys	Thr	Gln	Val	Thr	Gln	Asp	Gly	Asp	Ile
			100					105					110		
Pro	Asn	Ile	Pro	Ala	Glu	Glu	Asn	Ala	Ser	Thr	Ser	Thr	Pro	Ser	Ser
			115					120					125		
Thr	Leu	Val	Arg	Pro	Ile	Arg	Ser	Arg	Arg	Ala	Leu	Pro	Pro	Leu	Arg
	130					135					140				
Thr	Arg	Ser	Lys	Ser	Asp	Pro	Val	Leu	His	Pro	Ser	Glu	Glu	Arg	Ala
145					150					155				160	
Ala	Pro	Val	Leu	Ser	Cys	Glu	Ala	Ala	Thr	Gln	Thr	Glu	Arg	Arg	Leu
				165					170					175	
Asp	Leu	Ala	Ala	Val	Thr	Leu	Arg	Arg	Gly	Leu	Arg	Ser			

180

185

<210> 3033
 <211> 821
 <212> DNA
 <213> Homo sapiens

<400> 3033
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 ttcctatgga atgaggagga cgaaatggac atgacttggg agaagagact tgctaagaaa
 120
 tactatgata aattatttaa ggaatactgc atagcagatc tcagtaaata taaagaaaat
 180
 aagtttggat ttaggtggcg agtagaaaaa gaagtaattt caggaaaagg tcaatttttc
 240
 tgttgaaata aatattgtga taaaaaagaa ggcttaaaga gttgggaagt taattttggt
 300
 tatattgagc atggtgagaa gagaaatgca cttgttaaata taaggttatg ccaagaatgt
 360
 tccattaaat taaatttcca tcacaggaga aaagaaatca agtcaaaaaa aagaaaagat
 420
 aaaacaaaaa aagactgtga agagtcatca cataaaaaat ccagattatc ttctgcagaa
 480
 gaggcctcca agaaaaaaga taaaggacat tcatcttcaa agaaatctga agattctcta
 540
 cttagaaact ctgatgagga agaaagtgtc tcagaatctg aactttggaa ggttccacta
 600
 ccagagacag atgaaaaatc acaggaagaa gaatttgatg agtattttca ggatttggtt
 660
 ctatgagacg agagagagaa gcctccgctc cttaatgtga aacttcatga agttttaaac
 720
 ctcatgcaat ttgaaattcc atctacgtct ttatctgcaa gttacagctt ctgtgctttg
 780
 tcttcgcaac tacaaatcca gggtctctca gcaacaacac a
 821

<210> 3034
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 3034
 Xaa Arg Val Lys Gly Glu Asn Asp Lys Thr Asp Leu Asp Val Ile Arg
 1 5 10 15
 Glu Asn His Arg Phe Leu Trp Asn Glu Glu Asp Glu Met Asp Met Thr
 20 25 30
 Trp Glu Lys Arg Leu Ala Lys Lys Tyr Tyr Asp Lys Leu Phe Lys Glu
 35 40 45
 Tyr Cys Ile Ala Asp Leu Ser Lys Tyr Lys Glu Asn Lys Phe Gly Phe
 50 55 60
 Arg Trp Arg Val Glu Lys Glu Val Ile Ser Gly Lys Gly Gln Phe Phe
 65 70 75 80
 Cys Gly Asn Lys Tyr Cys Asp Lys Lys Glu Gly Leu Lys Ser Trp Glu

2258

85 90 95
Val Asn Phe Gly Tyr Ile Glu His Gly Glu Lys Arg Asn Ala Leu Val
100 105 110
Lys Leu Arg Leu Cys Gln Glu Cys Ser Ile Lys Leu Asn Phe His His
115 120 125
Arg Arg Lys Glu Ile Lys Ser Lys Lys Arg Lys Asp Lys Thr Lys Lys
130 135 140
Asp Cys Glu Glu Ser Ser His Lys Lys Ser Arg Leu Ser Ser Ala Glu
145 150 155 160
Glu Ala Ser Lys Lys Lys Asp Lys Gly His Ser Ser Ser Lys Lys Ser
165 170 175
Glu Asp Ser Leu Leu Arg Asn Ser Asp Glu Glu Glu Ser Ala Ser Glu
180 185 190
Ser Glu Leu Trp Lys Gly Pro Leu Pro Glu Thr Asp Glu Lys Ser Gln
195 200 205
Glu Glu Glu Phe Asp Glu Tyr Phe Gln Asp Leu Phe Leu
210 215 220

<210> 3035

<211> 878

<212> DNA

<213> Homo sapiens

<400> 3035

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120
cctcagacca cgacaggggc ctccacaca cggctcgcag aacctgtgca aggagaacca
180
caaaggatga gcactctggc ccacccaaaa ccatggcagc cctgagggca cagactggac
240
accctgcaga gtctcactct gtcattcagg gtggagtgc atggcgcaat ctcaactcac
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360
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420
tgagctccct gctgtgcccc acacctggcg ggtctttgcc cacatgtgcc tagagtctgc
480
atgctctgcc ccatggctac ccgctgctgc ctgcaagggt ccagagtcac gtccccagtg
540
agtctctgac ccggcggcca gcacaccagt gtgaatcac tgtgtcccca gtgagtctct
600
gacccggcgg ccagcgcacc agtgtgaatc acatgcgtcc ccagtgagtc tctgaccgg
660
cgaccagagc accagtgtga atcacatgcg tccccgggtga gtctctgcag ggtgtccagt
720
ctgtgccctc agggctgcca tggttttggg tgggccagag tgctcctct ttgtggtct
780
ccttgacaaa gttctgcgag ccatgtgtgg gagggccctg tcgtggtctg aggacgtccc
840
gggttagaat ctgtaggctg ggcaccttcc gggaaccg
878

<210> 3036
<211> 65
<212> PRT
<213> Homo sapiens

<400> 3036
Gly His Arg Leu Asp Thr Leu Gln Ser Leu Thr Leu Ser Phe Arg Val
1 5 10 15
Glu Cys Asn Gly Ala Ile Ser Ala His Cys Asn Leu Pro Leu Pro Gly
20 25 30
Ser Ser Asn Ser Pro Asp Pro His Ser Gly Pro Ala Pro Ser Gln Thr
35 40 45
Val Ile Leu Phe Leu Glu Gly Asn Arg Asp Pro Gly Gly Arg Gly Trp
50 55 60
Pro
65

<210> 3037
<211> 3538
<212> DNA
<213> Homo sapiens

<400> 3037
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acaaagaaac ttcttgatga acaagaacaa gaagatgagg aagccagcac tggatctcat
120
ctcaagctca tagtagatgc tttcctacag cagttaccca actgtgtcaa ccgagatctg
180
atagacaagg cagcaatgga tttttgcatg aacatgaaca caaaagcaaa caggaagaag
240
ttggtacggg cactcttcat agttcctaga caaagggttg atttgctacc attttatgca
300
agattgggtt ctacattgca tccctgcatg tctgatgtag cagaggatct ttgttccatg
360
ctgagggggg atttcagatt tcatgtacgg aaaaaggacc agatcaatat tgaaacaaag
420
aataaaaactg ttcgttttat aggagaacta actaagtta agatgttcac caaaaatgac
480
acactgcatt gtttaaagat gtttctgtca gacttctctc atcaccatat tgaaatggca
540
tgcaccctgc tggagacatg tggacggttt cttttcagat ctccagaatc tcacctgagg
600
accagtgtac ttttgagca aatgatgaga aagaagcaag caatgcatct tgatgcgaga
660
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720
gtgaaaaaga aacgtcctcc tctccaggaa tatgtccgga aacttttgta caaggatctc
780
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840
gaagtgaag actatgttat ttgttgatg ataaacatct ggaatgtgaa atataatagt
900

attcattgtg tagccaacct cttagcagga ctagtgctct accaagagga tgttgggatc
960
cacgttgtgg atggagtgtt agaagatatt cgattaggaa tggagggtta tcaacctaaa
1020
tttaatcaga ggcgcatcag cagtgccaaag ttcttaggag aactttacaa ttaccgaatg
1080
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1140
gatggctctc caagtccctt ggaccacact gagcatcttt tcagaattag actcgtatgc
1200
actattctgg acacatgtgg ccagtacttt gacagagggt ccagtaaagc aaaacttgat
1260
tgtttctctg tatattttca gcgttatgtt tgggtgaaga aaagtttga ggtttggaca
1320
aaagaccatc catttcctat tgatatagat tacatgatca gtgatacact agaactgcta
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1440
gaacgagaat tcttaataaa actaggccta gtaaatgaca aagactcaa agattttatg
1500
acagaaggag aaaatcttga agaggatgaa gaagaagaag aagggtggggc tgaaacagaa
1560
gaacaatctg gaaatgaaag tgaagtaaag gagccagaag aagaggaggg ttctgataat
1620
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1680
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1740
catgtacctt gtgtagaaga tgaggacttc attcaagctc tggataaaat gatgctagaa
1800
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1860
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1920
gagtctgcag acacaatgcc gtttgtcatg ttaacaagaa aaggcaataa acagcagttt
1980
aagatcctta atgtacccat gtcctctcaa cttgctgcaa atcactggaa ccagcaacag
2040
gcagaacaag aagagaggat gagaatgaaa aagctcacac tagatatcaa tgaacggcaa
2100
gaacaagaag attatcaaga aatgttgcatg tctcttgcat agcgcccagc tccagcaaac
2160
accaatcgtg agaggcggcc tcgctaccaa catccgaagg gagcacctaa tgcagatcta
2220
atctttaaga ctggtgggag gagacgttga tccagcagca cgtgtcattt cattaggtcc
2280
tgtatctgat gttgtggtta gtggagtcct ccagcaattg aatgagagca gtggacacat
2340
ctcagcaggc cggctctagag agttgcgaat ctaaacttgg gacaggctgg ggccaggagg
2400
cagaaacacc agcctctgcc aacaccggaa caagccgacg cttccagaca aggcggaaaa
2460
ggccttttgt aatggaaatc tcgagagggt taatcttctc ttgagaatgg cagtcaagaa
2520

atgagatggg tcacttgact actgagcagt tacaccaagg agagcgtgaa ggggatgatt
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 2760
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 3420
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<210> 3038

<211> 697

<212> PRT

<213> Homo sapiens

<400> 3038

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 20 25 30
 Leu Phe Ile Val Pro Arg Gln Arg Leu Asp Leu Leu Pro Phe Tyr Ala
 35 40 45
 Arg Leu Val Ala Thr Leu His Pro Cys Met Ser Asp Val Ala Glu Asp
 50 55 60
 Leu Cys Ser Met Leu Arg Gly Asp Phe Arg Phe His Val Arg Lys Lys
 65 70 75 80
 Asp Gln Ile Asn Ile Glu Thr Lys Asn Lys Thr Val Arg Phe Ile Gly
 85 90 95
 Glu Leu Thr Lys Phe Lys Met Phe Thr Lys Asn Asp Thr Leu His Cys

100 105 110
Leu Lys Met Leu Leu Ser Asp Phe Ser His His His Ile Glu Met Ala
115 120 125
Cys Thr Leu Leu Glu Thr Cys Gly Arg Phe Leu Phe Arg Ser Pro Glu
130 135 140
Ser His Leu Arg Thr Ser Val Leu Leu Glu Gln Met Met Arg Lys Lys
145 150 155 160
Gln Ala Met His Leu Asp Ala Arg Tyr Val Thr Met Val Glu Asn Ala
165 170 175
Tyr Tyr Tyr Cys Asn Pro Pro Pro Ala Glu Lys Thr Val Lys Lys Lys
180 185 190
Arg Pro Pro Leu Gln Glu Tyr Val Arg Lys Leu Leu Tyr Lys Asp Leu
195 200 205
Ser Lys Val Thr Thr Glu Lys Val Leu Arg Gln Met Arg Lys Leu Pro
210 215 220
Trp Gln Asp Gln Glu Val Lys Asp Tyr Val Ile Cys Cys Met Ile Asn
225 230 235 240
Ile Trp Asn Val Lys Tyr Asn Ser Ile His Cys Val Ala Asn Leu Leu
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Ala Gly Leu Val Leu Tyr Gln Glu Asp Val Gly Ile His Val Val Asp
260 265 270
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275 280 285
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325 330 335
Pro Pro Glu His Leu Phe Arg Ile Arg Leu Val Cys Thr Ile Leu Asp
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385 390 395 400
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405 410 415
Ser Leu Glu Glu Ser Ile Arg Gln Val Gln Asp Leu Glu Arg Glu Phe
420 425 430
Leu Ile Lys Leu Gly Leu Val Asn Asp Lys Asp Ser Lys Asp Phe Met
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450 455 460
Ala Glu Thr Glu Glu Gln Ser Gly Asn Glu Ser Glu Val Asn Glu Pro
465 470 475 480
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 580 585 590
 Thr Met Pro Phe Val Met Leu Thr Arg Lys Gly Asn Lys Gln Gln Phe
 595 600 605
 Lys Ile Leu Asn Val Pro Met Ser Ser Gln Leu Ala Ala Asn His Trp
 610 615 620
 Asn Gln Gln Gln Ala Glu Gln Glu Glu Arg Met Arg Met Lys Lys Leu
 625 630 635 640
 Thr Leu Asp Ile Asn Glu Arg Gln Glu Gln Glu Asp Tyr Gln Glu Met
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<210> 3039
 <211> 1836
 <212> DNA
 <213> Homo sapiens

<400> 3039
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1740
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1836

<210> 3040

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3040

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<210> 3041

<211> 1512

<212> DNA

<213> Homo sapiens

<400> 3041

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<210> 3042
<211> 360
<212> PRT
<213> Homo sapiens

<400> 3042
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35 40 45
Val Ile Leu Ala Val Ser Tyr Met Ser Gln Val Leu Glu Lys Glu Met
50 55 60
Lys Ala Gln Glu Gln Arg Leu Gly Ile Arg Ile Ser Met Ser His Glu
65 70 75 80
Glu Glu Pro Leu Gly Thr Ala Gly Pro Leu Ala Leu Ala Arg Asp Leu
85 90 95
Leu Ser Glu Thr Ala Asp Pro Phe Phe Val Leu Asn Ser Asp Val Ile
100 105 110
Cys Asp Phe Pro Phe Gln Ala Met Val Gln Phe His Arg His His Gly
115 120 125
Gln Glu Gly Ser Ile Leu Val Thr Lys Val Glu Glu Pro Ser Lys Tyr
130 135 140
Gly Val Val Val Cys Glu Ala Asp Thr Gly Arg Ile His Arg Phe Val
145 150 155 160
Glu Lys Pro Gln Val Phe Val Ser Asn Lys Ile Asn Ala Gly Met Tyr
165 170 175
Ile Leu Ser Pro Ala Val Leu Arg Arg Ile Gln Leu Gln Pro Thr Ser
180 185 190
Ile Glu Lys Glu Val Phe Pro Ile Met Ala Lys Glu Gly Gln Leu Tyr
195 200 205
Ala Met Glu Leu Gln Gly Phe Trp Met Asp Ile Gly Gln Pro Lys Asp
210 215 220
Phe Leu Thr Gly Met Cys Leu Phe Leu Gln Ser Leu Arg Gln Lys Gln
225 230 235 240
Pro Glu Arg Leu Cys Ser Gly Pro Gly Ile Val Gly Asn Val Leu Val
245 250 255
Asp Pro Ser Ala Arg Ile Gly Gln Asn Cys Ser Ile Gly Pro Asn Val
260 265 270
Ser Leu Gly Pro Gly Val Val Val Glu Asp Gly Val Cys Ile Arg Arg

275 280 285
Cys Thr Val Leu Arg Asp Ala Arg Ile Arg Ser His Ser Trp Leu Glu
290 295 300
Ser Cys Ile Val Gly Trp Arg Cys Arg Val Gly Gln Trp Val Arg Met
305 310 315 320
Glu Asn Val Thr Val Leu Gly Glu Asp Val Ile Val Asn Asp Glu Leu
325 330 335
Tyr Leu Asn Gly Ala Ser Val Leu Pro His Lys Ser Ile Gly Glu Ser
340 345 350
Val Pro Glu Pro Arg Ile Ile Met
355 360

<210> 3043
<211> 394
<212> DNA
<213> Homo sapiens

<400> 3043
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300
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394

<210> 3044
<211> 115
<212> PRT
<213> Homo sapiens

<400> 3044
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20 25 30
Gln Arg Leu Gly Asn Ile Ser Leu Lys Leu Glu Asn His Cys Pro Phe
35 40 45
Asn Asp Thr Gln Pro Glu Asp Pro Lys Thr Gly Ser Pro Leu Lys Cys
50 55 60
Gln Arg His Val Ser Trp Ser Glu Val Arg Glu Ala Asp Ser Gly Leu
65 70 75 80
Leu Leu Gly Gln Thr Pro Val Lys Arg Lys Arg Trp His His Glu Thr
85 90 95
Ser Ser Phe Ser Pro Cys Leu Trp Leu Lys Ala Arg Ala Ser Arg Ser
100 105 110
Lys Glu Ile

115

<210> 3045
<211> 605
<212> DNA
<213> Homo sapiens

<400> 3045
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120
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240
aacattgaaa agtggcctga caatggtagg gaaagtgggtg actcagctga caggcacact
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605

<210> 3046
<211> 72
<212> PRT
<213> Homo sapiens

<400> 3046
His Arg Asn Arg Gly Glu Gly Gln Val Phe Val Ser Glu Asp Leu Asp
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Ser Asp Gly Ile Val Ala His Phe Pro Ala His Glu Lys Pro Val Cys
20 25 30
Cys Met Ala Phe Asn Thr Ser Gly Met Leu Leu Val Thr Thr Asp Thr
35 40 45
Leu Gly His Asp Phe His Val Phe Gln Ile Leu Thr His Pro Trp Ser
50 55 60
Ser Ser Thr Glu Arg Arg Gln Arg
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<210> 3047
<211> 391
<212> DNA
<213> Homo sapiens

<400> 3047

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240
gaacatggct atgagaacat gaaccacttc acagtcaacc tcaatagaga agaaaagata
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360
ggagaaaaag aagagaagga gaagtgggag a
391

<210> 3048
<211> 122
<212> PRT
<213> Homo sapiens

<400> 3048
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Arg Ala Leu Ile Lys Lys Tyr Ser Asp His Leu Glu Asn Val Ser Lys
20 25 30
Leu Val Glu Ser Gly Ile Gln Phe Met Asp Glu Pro Glu Met Ala Val
35 40 45
Phe Leu Gln Asn Ala Lys Thr Leu Leu Lys Lys Ile Ser Glu Ala Ser
50 55 60
Lys Ala Phe Gln Met Glu Lys Ile Glu His Gly Tyr Glu Asn Met Asn
65 70 75 80
His Phe Thr Val Asn Leu Asn Arg Glu Glu Lys Ile Ile Arg Glu Ile
85 90 95
Asp Phe Tyr Arg Glu Asp Glu Asp Glu Glu Glu Glu Gly Gly Glu
100 105 110
Gly Glu Lys Glu Glu Lys Glu Lys Trp Glu
115 120

<210> 3049
<211> 599
<212> DNA
<213> Homo sapiens

<400> 3049
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300

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599

<210> 3050
<211> 177
<212> PRT
<213> Homo sapiens

<400> 3050
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Val His Phe Pro Ser Leu Asn Glu Ser Ser Ala Glu Val Leu Glu Tyr
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Thr Ile Lys Glu Glu Lys Ser Ile Leu Tyr Leu Glu Gly Ser Ala Leu
35 40 45
Val Phe Glu Asp Ile Phe Arg Leu Ile Ala Phe Tyr Cys Val Ser Arg
50 55 60
Asp Leu Leu Pro Phe Thr Leu Arg Leu Pro Gln Ala Ile Leu Glu Ala
65 70 75 80
Ser Ser Phe Thr Asp Leu Glu Thr Ile Ala Asn Leu Gly Leu Gly Phe
85 90 95
Trp Asp Ser Ser Leu Asn Pro Pro Gln Glu Arg Gly Lys Pro Ala Glu
100 105 110
Pro Pro Arg Asp Arg Ala Pro Gly Phe Pro Leu Val Ser Ser Leu Arg
115 120 125
Pro Thr Ala His Asp Ala Asn Cys Ala Cys Glu Ile Glu Leu Ser Val
130 135 140
Gly Asn Asp Arg Leu Trp Phe Val Asn Pro Ile Phe Ile Glu Asp Cys
145 150 155 160
Ser Ser Ala Leu Pro Thr Asp Gln Pro Pro Leu Gly Asn Cys Pro Ser
165 170 175
Arg

<210> 3051
<211> 820
<212> DNA
<213> Homo sapiens

<400> 3051
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180

tcctcggcca ccgtcgaca acaggcctcc tcctccccag tccctggagg gactccgaca
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300
agtccctctt agatgaaccc tatgagaagg tcaagaagcg ctccctctcac agccattcca
360
gcagccacaa gcgcttcccc agcacaggaa gctgtgcgga agccggcgga ggaagcaact
420
ccttgagaa cagccccatc cgcggcctcc cgcactggaa ctcccagtcc agcatgccgt
480
ccacgccaga cctgcgggtc cggagtcccc actacgtcca ttccacgagg tcggtggaca
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720
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780
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820

<210> 3052
<211> 62
<212> PRT
<213> Homo sapiens

<400> 3052
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Gly Thr Pro Ser Ser Ala Thr Val Ala Gln Gln Ala Ser Ser Ser Pro
20 25 30
Val Pro Gly Gly Thr Pro Thr Asp Ala Leu Ser Pro Xaa Thr Thr Met
35 40 45
Thr Ser His Pro Ser Ser Pro Lys Cys Gly Val Ser Pro Leu
50 55 60

<210> 3053
<211> 2625
<212> DNA
<213> Homo sapiens

<400> 3053
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<211> 417

<212> PRT

<213> Homo sapiens

<400> 3054

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Trp Glu Val Asn Leu Thr Asn His Cys Gly Phe Met Gly Gly Leu Gln
      225      230      235      240
Lys Asn Lys Ser Thr Gly Leu Thr Thr Pro Tyr Phe Ala Thr Ser Thr
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      260      265      270
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Thr Glu Phe Gly Asp Val Leu Ile Val Ile Tyr Pro Met Lys Asn His
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      325      330      335
Pro Leu Phe Asp Gly Ala Ile Val Asn Gly Lys Val Leu Pro Ile Met
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Val Arg Ala Thr Ala Ile Asn Ala Ser Arg Ala Leu Lys Ser Leu Ile
      355      360      365
Pro Leu Tyr Gln Asn Phe Tyr Glu Glu Arg Ala Arg Tyr Leu Gln Thr
      370      375      380
Ile Val Gln His His Leu Glu Pro Thr Thr Phe Glu Asp Phe Ala Ala
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<210> 3055

<211> 905

<212> DNA

<213> Homo sapiens

<400> 3055

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<212> PRT
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Ser Glu His Gly Thr Thr Val Asp Asn Val Leu Tyr Ser Cys Asp Phe
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Ser Glu Lys Thr Pro Pro Thr Pro Pro Ser Ser Ile Val Ala Lys Val
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Gln Ser Val Ile Arg Arg Arg Arg His Gln Lys Gln Asp Glu Glu Pro
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<211> 298

<212> PRT

<213> Homo sapiens

<400> 3058

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<210> 3059

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<212> DNA

<213> Homo sapiens

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<211> 334

<212> PRT

<213> Homo sapiens

<400> 3060

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1140

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<210> 3062

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3062

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						85					90			95	
Gly	Arg	Tyr	Arg	His	Pro	Gly	Cys	Tyr	Thr	Cys	Ala	Asp	Cys	Gly	Leu
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145															

<210> 3063

<211> 386

<212> DNA

<213> Homo sapiens

<400> 3063

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<210> 3064
<211> 128
<212> PRT
<213> Homo sapiens

<400> 3064
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35 40 45
Met Ile Val Ala Ala Phe Gln Cys Leu Cys Val Trp Leu Thr Glu His
50 55 60
Pro Asp Met Leu Asp Glu Lys Asp Tyr Leu Lys Glu Val Leu Glu Ile
65 70 75 80
Val Glu Leu Gly Ile Ser Gly Ser Lys Ser Lys Asn Asn Glu Gln Glu
85 90 95
Val Lys Tyr Lys Gly Asp Lys Glu Pro Asn Pro Ala Ser Met Arg Val
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Lys Asp Ala Ala Glu Ala Thr Leu Thr Trp Tyr Gly Ser Asp Arg Thr
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<210> 3065
<211> 2104
<212> DNA
<213> Homo sapiens

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2104

<210> 3066
<211> 183
<212> PRT
<213> Homo sapiens

<400> 3066
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35 40 45
Pro Val Gly Glu Glu Ser Ile Ser Asp Ala Glu Lys Val Ala Met Xaa
50 55 60
Ser Gln Gly Pro Xaa Thr Ala Pro Gly Ser Pro Cys Arg Ser Cys Gly
65 70 75 80
Thr Cys Cys Thr Arg Gly Thr Xaa Leu Lys Ser Lys Val Phe Leu Leu
85 90 95
Gln Glu Glu Leu Ala Tyr Tyr Lys Ser Glu Glu Met Glu Glu Asn
100 105 110
Arg Ile Pro Gln Pro Pro Pro Ile Ala His Pro Arg Thr Ser Pro Gln
115 120 125
Pro Glu Ser Gly Ile Lys Arg Leu Phe Ser Phe Phe Ser Arg Asp Lys
130 135 140
Lys Arg Leu Ala Asn Thr Gln Arg Asn Val His Ile Gln Glu Ser Phe
145 150 155 160
Gly Gln Trp Ala Asn Thr His Arg Asp Asp Gly Tyr Thr Glu Gln Gly
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Gln Glu Ala Leu Gln His Leu
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<210> 3067
<211> 645
<212> DNA
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<210> 3068
<211> 204
<212> PRT
<213> Homo sapiens

<400> 3068
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35 40 45
Arg Glu Pro Thr Ala Gly Ser Pro Pro Cys Ser Leu Pro Arg Pro Asp
50 55 60
Leu Gln Pro Pro Ser Thr Pro Pro Pro Pro Val His Lys Glu Gln Lys
65 70 75 80
Lys Ser Asp Pro Pro Pro Pro Pro Gly Lys Phe Lys Ser Phe Leu
85 90 95
Pro Pro Arg Ser Pro Gly Asn Ser Ala Leu Gly Pro Arg Arg Gly Trp
100 105 110
Gly Trp Ile Ala Ala Gly Gly Ala Pro Ala Met Pro Arg Pro Pro Ser
115 120 125
Gly Ala Gly Asp Arg Glu Ile Pro Arg Asp Leu Ala Cys Ala Pro Tyr
130 135 140
Pro Pro Pro Gly Ala Gly Arg Gly Ser Glu His Arg Ser Ala Pro Gly
145 150 155 160
Arg Arg Cys Gly Ser Lys Glu Pro Glu Ala Ala Ala Ser Arg Pro Pro
165 170 175
Ser Pro Ala Glu Glu Glu Pro Pro Pro Val Ser Ala Glu Glu Thr Pro
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Pro Ser Pro Ala Pro Pro Pro Arg Gly Glu Trp Gly
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<210> 3069
<211> 1561
<212> DNA
<213> Homo sapiens

<400> 3069
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180

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<210> 3070

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3070

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 35 40 45
 Tyr Phe Gln Val Leu Cys Val Ala Asp Val Val Ile Ser Thr Ala Lys
 50 55 60
 His Glu Phe Phe Gly Val Ala Met Leu Glu Ala Val Tyr Cys Gly Cys
 65 70 75 80
 Tyr Pro Leu Cys Pro Lys Asp Leu Val Tyr Pro Glu Ile Phe Pro Ala
 85 90 95
 Glu Tyr Leu Tyr Ser Thr Pro Glu Gln Leu Ser Lys Arg Leu Gln Asn
 100 105 110
 Phe Cys Lys Arg Pro Asp Ile Ile Arg Lys His Leu Tyr Lys Gly Glu
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<210> 3071

<211> 3343

<212> DNA

<213> Homo sapiens

<400> 3071

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<210> 3072

<211> 349

<212> PRT

<213> Homo sapiens

<400> 3072

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Ala	Pro	Phe	Leu	Ala	Leu	His	Arg	Gln	Val	His	Ala	Ala	Ala	Thr	Pro
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Arg Ala His Leu Arg Arg Cys His Pro Pro Ala Pro Glu Ala Arg Pro
      165      170      175
Phe Ile Cys Gly Asn Cys Gly Arg Ser Phe Ala Gln Trp Asp Gln Leu
      180      185      190
Val Ala His Lys Arg Val His Val Ala Glu Ala Leu Glu Glu Ala Ala
      195      200      205
Ala Lys Ala Leu Gly Pro Arg Pro Arg Gly Arg Pro Ala Val Thr Ala
      210      215      220
Pro Arg Pro Gly Gly Asp Ala Val Asp Arg Pro Phe Gln Cys Ala Cys
      225      230      235      240
Cys Gly Lys Arg Phe Arg His Lys Pro Asn Leu Ile Ala His Arg Arg
      245      250      255
Val His Thr Gly Glu Arg Pro His Gln Cys Pro Glu Cys Gly Lys Arg
      260      265      270
Phe Thr Asn Lys Pro Tyr Leu Thr Ser His Arg Arg Ile His Thr Gly
      275      280      285
Glu Lys Pro Tyr Pro Cys Lys Glu Cys Gly Arg Arg Phe Arg His Lys
      290      295      300
Pro Asn Leu Leu Ser His Ser Lys Ile His Xaa Ser Asp Pro Arg Gly
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<211> 791

<212> DNA

<213> Homo sapiens

<400> 3073

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240
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420
gagcagtgca cacaggaaga cgtgtcttca gaagatgaag atgaggagat gcctgaggac
480
acagaagact tagatcacta tgaaatgaaa gaggaagagc cagctgaggg caagaaatct
540

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<210> 3074

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3074

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			20					25					30		
Ser	Cys	Glu	Phe	Leu	Leu	Ala	Gly	Ala	Gly	Gly	Ala	Gly	Ala	Gly	Ala
		35					40					45			
Ala	Pro	Gly	Pro	His	Leu	Pro	Arg	Gly	Ser	Val	Pro	Gly	Asp	Pro	
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Arg	Leu	Val	Asp	Ile	Lys	Lys	Gly	Asn	Thr	Leu	Leu	Leu	Gln	His	Leu
			100					105					110		
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Thr	Glu	Asp	Leu	Asp	His	Tyr	Glu	Met	Lys	Glu	Glu	Glu	Pro	Ala	Glu
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Gly	Lys	Lys	Ser	Glu	Asp	Asp	Gly	Ile	Gly	Lys	Glu	Asn	Leu	Ala	Ile
			180					185					190		
Leu	Glu	Lys	Ile	Lys	Lys	Asn	Gln	Arg	Gln	Asp	Tyr	Leu	Asn	Gly	Ala
		195					200						205		
Val	Ser	Gly	Ser	Val	Gln	Ala	Thr	Asp	Arg	Leu	Met	Lys	Glu	Leu	Gln
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Gly	Tyr	Ile	Thr	Xaa	Ser	Gln	Ser	Phe	Lys	Gly	Gly	Asn	Tyr	Xaa	Ser
225					230					235				240	
Ser	Asn	Ser	Trp	Asn	Asp	Ser	Leu	Tyr	Gly	Trp	Asp	Val	Gln	Leu	Leu
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<210> 3075

<211> 603

<212> DNA

<213> Homo sapiens

<400> 3075

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<210> 3076

<211> 201

<212> PRT

<213> Homo sapiens

<400> 3076

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20          25          30
Val Gly Pro Gln Lys Lys Lys Lys Lys Lys Lys Val Leu Gly Gly
35          40          45
Gly Arg Phe Gly Gln Val His Arg Cys Thr Glu Lys Ser Thr Gly Leu
50          55          60
Ala Leu Ala Ala Lys Ile Ile Lys Val Lys Asn Val Lys Asp Arg Glu
65          70          75          80
Asp Val Lys Asn Glu Val Asn Ile Met Asn Gln Leu Ser His Val Asn
85          90          95
Leu Ile Gln Leu Tyr Asp Ala Phe Glu Ser Lys Ser Ser Phe Thr Leu
100         105         110
Ile Met Glu Tyr Val Asp Gly Gly Glu Leu Phe Asp Arg Ile Thr Asp
115         120         125
Glu Lys Tyr His Leu Thr Glu Leu Asp Val Val Leu Phe Thr Arg Gln
130         135         140
Ile Cys Glu Gly Val His Tyr Leu His Gln His Tyr Ile Leu His Leu
145         150         155         160
Asp Leu Lys Pro Glu Asn Ile Leu Cys Val Ser Gln Thr Gly His Gln
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165 170 175
Ile Lys Ile Ile Asp Phe Gly Leu Ala Arg Arg Tyr Lys Pro Arg Glu
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Lys Leu Lys Val Asn Phe Gly Thr Pro
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<210> 3077

<211> 1377

<212> DNA

<213> Homo sapiens

<400> 3077

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240
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420
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720
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780
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1377

<210> 3078
<211> 310
<212> PRT
<213> Homo sapiens

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Val Gly Ala Leu Pro Arg Gly Pro Arg Gln Asn Ser Arg Leu Gly Leu
35 40 45
Pro Leu Leu Leu Met Pro Glu Glu Ala Arg Leu Leu Ala Glu Ile Gly
50 55 60
Ala Val Thr Leu Val Ser Ala Pro Arg Pro Asp Ser Arg His His Ser
65 70 75 80
Leu Ala Leu Thr Ser Phe Lys Arg Gln Gln Glu Glu Ser Phe Gln Glu
85 90 95
Gln Ser Ala Leu Ala Ala Glu Ala Arg Glu Thr Arg Arg Gln Glu Leu
100 105 110
Leu Glu Lys Ile Thr Glu Gly Gln Ala Ala Lys Lys Gln Lys Leu Glu
115 120 125
Gln Ala Ser Gly Ala Ser Ser Ser Gln Glu Ala Gly Ser Ser Gln Ala
130 135 140
Ala Lys Glu Asp Glu Thr Ser Asp Gly Gln Ala Ser Gly Glu Gln Glu
145 150 155 160
Glu Ala Gly Pro Ser Ser Ser Gln Ala Gly Pro Ser Asn Gly Val Ala
165 170 175
Pro Leu Pro Arg Ser Ala Leu Leu Val Gln Leu Ala Thr Ala Arg Pro
180 185 190
Arg Pro Val Lys Ala Arg Pro Leu Asp Trp Arg Val Gln Ser Lys Asp
195 200 205
Trp Pro His Ala Gly Arg Pro Ala His Glu Leu Arg Tyr Ser Ile Tyr
210 215 220
Arg Asp Leu Trp Glu Arg Gly Phe Phe Leu Ser Ala Ala Gly Lys Phe
225 230 235 240
Gly Gly Asp Phe Leu Val Tyr Pro Gly Asp Pro Leu Arg Phe His Ala
245 250 255
His Tyr Ile Ala Gln Cys Trp Ala Pro Glu Asp Thr Ile Pro Leu Gln
260 265 270
Asp Leu Val Ala Ala Gly Arg Leu Gly Thr Ser Val Arg Lys Thr Leu
275 280 285
Leu Leu Cys Ser Pro Gln Pro Asp Gly Lys Val Val Tyr Thr Ser Leu
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Gln Trp Ala Ser Leu Gln
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<210> 3079
<211> 1785

<212> DNA

<213> Homo sapiens

<400> 3079

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240
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420
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1680
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<210> 3080

<211> 500

<212> PRT

<213> Homo sapiens

<400> 3080

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Val	Ser	Gln	Val	Gln	Pro	Pro	Pro	Ser	Lys	Ala	Ser	Ala	Pro	Glu	Pro
		35					40					45			
Pro	Ala	Glu	Glu	Glu	Val	Ala	Thr	Gly	Thr	Thr	Ser	Ala	Ser	Asp	Asp
	50					55					60				
Leu	Glu	Ala	Leu	Gly	Thr	Leu	Ser	Leu	Gly	Thr	Thr	Glu	Glu	Lys	Ala
65					70					75				80	
Ala	Ala	Glu	Ala	Ala	Val	Pro	Arg	Thr	Ile	Gly	Ala	Glu	Leu	Met	Glu
				85					90					95	
Leu	Val	Arg	Arg	Asn	Thr	Gly	Leu	Ser	His	Glu	Leu	Cys	Arg	Val	Ala
			100				105					110			
Ile	Gly	Ile	Ile	Val	Gly	His	Ile	Gln	Ala	Ser	Val	Pro	Ala	Ser	Ser
	115					120						125			
Pro	Val	Met	Glu	Gln	Val	Leu	Leu	Ser	Leu	Val	Glu	Gly	Lys	Asp	Leu
	130					135					140				
Ser	Met	Ala	Leu	Pro	Ser	Gly	Gln	Val	Cys	His	Asp	Gln	Gln	Arg	Leu
145				150					155					160	
Glu	Val	Ile	Phe	Ala	Asp	Leu	Ala	Arg	Arg	Lys	Asp	Asp	Ala	Gln	Gln
			165					170					175		
Arg	Ser	Trp	Ala	Leu	Tyr	Glu	Asp	Glu	Gly	Val	Ile	Arg	Cys	Tyr	Leu
		180					185					190			
Glu	Glu	Leu	Leu	His	Ile	Leu	Thr	Asp	Ala	Asp	Pro	Glu	Val	Cys	Lys
	195					200					205				
Lys	Met	Cys	Lys	Arg	Asn	Glu	Phe	Glu	Ser	Val	Leu	Ala	Leu	Val	Ala
	210				215					220					
Tyr	Tyr	Gln	Met	Glu	His	Arg	Ala	Ser	Leu	Arg	Leu	Leu	Leu	Leu	Lys
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Cys	Phe	Gly	Ala	Met	Cys	Ser	Leu	Asp	Ala	Ala	Ile	Ile	Ser	Thr	Leu
			245					250					255		
Val	Ser	Ser	Val	Leu	Pro	Val	Glu	Leu	Ala	Arg	Asp	Met	Gln	Thr	Asp
		260					265					270			
Thr	Gln	Asp	His	Gln	Lys	Leu	Cys	Tyr	Ser	Ala	Leu	Ile	Leu	Ala	Met
	275					280					285				
Val	Phe	Ser	Met	Gly	Glu	Ala	Val	Pro	Tyr	Ala	His	Tyr	Glu	His	Leu

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 Pro Leu Asp Thr Thr Glu Gln Leu Pro Asp Leu Cys Val Asn Leu Leu
 325 330 335
 Leu Ala Leu Asn Leu His Leu Pro Ala Ala Asp Gln Asn Val Ile Met
 340 345 350
 Ala Ala Leu Ser Lys His Ala Asn Val Lys Ile Phe Ser Glu Lys Leu
 355 360 365
 Leu Leu Leu Leu Asn Arg Gly Asp Asp Pro Val Arg Ile Phe Lys His
 370 375 380
 Glu Pro Gln Pro Pro His Ser Val Leu Lys Phe Leu Gln Asp Val Phe
 385 390 395 400
 Gly Ser Pro Ala Thr Ala Ala Ile Phe Tyr His Thr Asp Met Met Ala
 405 410 415
 Leu Ile Asp Ile Thr Val Arg His Ile Ala Asp Leu Ser Pro Gly Asp
 420 425 430
 Lys Gly Pro Phe Gly Ala Gly Gln Arg Pro Trp Pro Gly Val Pro Arg
 435 440 445
 Leu Leu Glu Pro Gly Ser Thr Pro Ser Arg Glu Pro His Pro Val Glu
 450 455 460
 Arg Ser Gly Val Pro Ala Leu Thr Ser Ser Trp Ala Ser Gly Cys Pro
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 Arg Pro Leu His Pro Ala Leu Gln Leu Val Ile Asp Ser Ala Phe Gly
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 Gly Arg Ser Val
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<210> 3081
 <211> 1902
 <212> DNA
 <213> Homo sapiens

<400> 3081
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1902

<210> 3082

<211> 414

<212> PRT

<213> Homo sapiens

<400> 3082

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35 40 45
Cys His Asp Asp Ala Ala Lys Phe Val His Leu Leu Met Ser Pro Gly
50 55 60
Cys Asn Tyr Leu Val Gln Glu Asp Phe Val Pro Phe Leu Gln Asp Val
65 70 75 80
Val Asn Thr His Pro Gly Leu Ser Phe Leu Lys Glu Ala Ser Glu Phe
85 90 95
His Ser Arg Tyr Ile Thr Thr Val Ile Gln Arg Ile Phe Tyr Ala Val
100 105 110
Asn Arg Ser Trp Ser Gly Arg Ile Thr Cys Ala Glu Leu Arg Arg Ser
115 120 125
Ser Phe Leu Gln Asn Val Ala Leu Leu Glu Glu Glu Ala Asp Ile Asn
130 135 140
Gln Leu Thr Glu Phe Phe Ser Tyr Glu His Phe Tyr Val Ile Tyr Cys
145 150 155 160
Lys Phe Trp Glu Leu Asp Thr Asp His Asp Leu Leu Ile Asp Ala Asp
165 170 175
Asp Leu Ala Arg His Asn Asp His Ala Leu Ser Thr Lys Met Ile Asp
180 185 190
Arg Ile Phe Ser Gly Ala Val Thr Arg Gly Arg Lys Val Gln Lys Glu
195 200 205
Gly Lys Ile Ser Tyr Ala Asp Phe Val Trp Phe Leu Ile Ser Glu Glu
210 215 220
Asp Lys Lys Thr Pro Thr Ser Ile Glu Tyr Trp Phe Arg Cys Met Asp
225 230 235 240
Leu Asp Gly Asp Gly Ala Leu Ser Met Phe Glu Leu Glu Tyr Phe Tyr
245 250 255
Glu Glu Gln Cys Arg Arg Leu Asp Ser Met Ala Ile Glu Ala Leu Pro
260 265 270
Phe Gln Asp Cys Leu Cys Gln Met Leu Asp Leu Val Lys Pro Arg Thr
275 280 285
Glu Gly Lys Ile Thr Leu Gln Asp Leu Lys Arg Cys Lys Leu Ala Asn
290 295 300
Val Phe Phe Asp Thr Phe Phe Asn Ile Glu Lys Tyr Leu Asp His Glu
305 310 315 320
Gln Lys Glu Gln Ile Ser Leu Leu Arg Asp Gly Asp Ser Gly Gly Pro
325 330 335
Glu Leu Ser Asp Trp Glu Lys Tyr Ala Ala Glu Glu Tyr Asp Ile Leu
340 345 350
Val Ala Glu Glu Thr Val Gly Glu Pro Trp Glu Asp Gly Phe Glu Ala
355 360 365
Glu Leu Ser Pro Val Glu Gln Lys Leu Ser Ala Leu Arg Ser Pro Leu
370 375 380
Ala Gln Arg Pro Phe Phe Glu Ala Pro Ser Pro Leu Gly Ala Val Asp
385 390 395 400
Leu Tyr Glu Tyr Ala Cys Gly Asp Glu Asp Leu Glu Pro Leu
405 410

<210> 3083

<211> 610

<212> DNA

<213> Homo sapiens

<400> 3083

ngccggccca gctgctggga acctgtcagg ccctcgggct ccagtcacct gagctggcac
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120
gactgggcag gccgggcccg ggcactgggt ggtgacagtc atacttcgtg gagcccagcg
180
agcatcccgg gcaagcacta ccaggctgtg ggtctgcacc tctggaaggt agagaagcgg
240
cgggtcaatc tgcctagggt cctgtccatg ccccccgtgg ctggcaccgc gtgccatgca
300
tacgaccggg aggtccacct gcgttgtgag ctctcaccgg gctactacct ggctgtcccc
360
agcaccttcc tgaaggacgc gccagggggag ttctgtctcc gagtcttctc taccggggga
420
gtctccctta ggtgagagga accgcgcagt gctgctggct ctccgaggcc acaggccctt
480
ccaaggcagg atttgggcac tttccctctg tggttggcag gtgtccatgt gggaactgag
540
gccaccggga acctgctgcc agcgccctcc catgtttgtc ttcttggcag cgccatcagg
600
gcagtggcca
610

<210> 3084

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3084

Xaa	Arg	Pro	Ser	Cys	Trp	Glu	Pro	Val	Arg	Pro	Ser	Gly	Ser	Ser	His
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Leu	Ser	Trp	His	Arg	Gly	Pro	Pro	Cys	Glu	Val	Tyr	Ile	Ala	Val	Leu
			20					25					30		
Gln	Arg	Ser	Arg	Leu	His	Ala	Ala	Asp	Trp	Ala	Gly	Arg	Ala	Arg	Ala
		35					40					45			
Leu	Val	Gly	Asp	Ser	His	Thr	Ser	Trp	Ser	Pro	Ala	Ser	Ile	Pro	Gly
	50					55				60					
Lys	His	Tyr	Gln	Ala	Val	Gly	Leu	His	Leu	Trp	Lys	Val	Glu	Lys	Arg
65				70					75					80	
Arg	Val	Asn	Leu	Pro	Arg	Val	Leu	Ser	Met	Pro	Pro	Val	Ala	Gly	Thr
			85						90				95		
Ala	Cys	His	Ala	Tyr	Asp	Arg	Glu	Val	His	Leu	Arg	Cys	Glu	Leu	Ser
			100					105					110		
Pro	Gly	Tyr	Tyr	Leu	Ala	Val	Pro	Ser	Thr	Phe	Leu	Lys	Asp	Ala	Pro
		115					120					125			
Gly	Glu	Phe	Leu	Leu	Arg	Val	Phe	Ser	Thr	Gly	Arg	Val	Ser	Leu	Arg
	130					135						140			

<210> 3085

<211> 1080

<212> DNA

<213> Homo sapiens

<400> 3085
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120
caaaagataa gaaaatggaa attaagggaa atctgttcag caacaaagat cttgaggaat
180
tatgcagaca tatcaacaac agaaaccaag cagcacagca ttctcagaag cagtctactg
240
agctcttcca gtgcatgtac ttcaaagaca aagaccctgc caccgaggag cgttgcatat
300
ctgacggagt tatttattca attagaacaa atgggtgtgct tctatttata ccaaggtttg
360
ggattaaagg tgctgcttat ctaaaaaata aagatggttt agtcatctca tgtggcccag
420
atagctgttc tgaatggaaa ccaggatccc ttcaacgatt tcaaaacaaa attacctcta
480
ctacaacaga tggggaatct gttacgttcc atttgtttga ccatgtaacc gtaagaatat
540
ccatacaggc ctacggttc cattctgata caatcagact tgaaataatt agtaacaaac
600
catacaagat accaaatata gaacttattc atcagagttc ccccttgctg aagagtgagt
660
tagtgaaaga agtaactaaa tctgtggaag aagctcagct tgccaagaa gtcaaagtaa
720
acatcattca ggaggaatat caagaatata gccaaacaaa gggaaggagc ctatacacac
780
ttctagagga gatacgggac cttagctctcc tggatgtttc aaacaattat ggaatatgag
840
aggctcttac ttcactaaga gctgtcatat gtgaatgttt tacagtcttt tcaaacttaa
900
catttaatgt gtgtcactca gtgctctagt cgatcaggac tgggtagcta tttcgcatat
960
atgtanaatg ttctcagccg ggcacggtgg ctacgcctg taacccagc actttgggag
1020
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1080

<210> 3086
<211> 58
<212> PRT
<213> Homo sapiens

<400> 3086
Met Cys Val Thr Gln Cys Ser Ser Arg Ser Gly Leu Gly Ser Tyr Phe
1 5 10 15
Ala Tyr Met Xaa Asn Val Leu Ser Arg Ala Arg Trp Leu Thr Pro Val
20 25 30
Thr Pro Ala Leu Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu
35 40 45
Ile Glu Thr Ile Leu Ala Asn Thr Val Lys
50 55

<210> 3087
<211> 2329
<212> DNA
<213> Homo sapiens

<400> 3087
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cgagagaggg agcactgtga cacggaggga gaggtgacg actttgatcc tgggaagaag
120
gtggagggtgg agccgcccc agatcggccca gtccgagcgt gccggacaca gcagccggaa
180
atggagegca cccatattca gcaactcctg gaacacttcc tccgccagct tcagagaaaa
240
gatecccatg gatTTTTTgc ttttcctgtc acggatgcaa ttgctcctgg atattcaatg
300
ataataaaac atcccatgga ttttggcacc atgaaagaca aaattgtagc taatgaatac
360
aagtcagtta cggaatttaa ggcagatttc aagctgatgt gtgataatgc aatgacatac
420
aataggccag ataccgtgta ctacaagttg gcgaagaaga tccttcacgc aggctttaag
480
atgatgagca aacaggcagc tcttttgggc aatgaagata cagctgttga ggaacctgtc
540
cctgaagttg taccagtaca agtagaaact gccaagaaat ccaaaaagcc gagtagagaa
600
gttatcagct gcatgtttga gcctgaaggg aatgcctgca gcttgacgga cagtaccgca
660
gaggagcacg tgctggcgct ggtggagcac gcagctgacg aagctcggga caggatcaac
720
cggttcctcc caggcgga gatgggctat ctgaagagga acggggacgg gagcctgtc
780
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840
tgagctcgtc ctccagtaag ctactcccag gcttcaccac gctgggcttc aaagacgaga
900
gaagaaacaa agtcaccttt ctctccagtg ccactactgc gctttcgatg cagaataatt
960
cagtatttgg cgacttgaag tcggacgaga tggagctgct ctactcagcc tacggagatg
1020
agacaggcgt gcagtgtgcg ctgagcctgc aggagtttgt gaaggatgct gggagctaca
1080
gcaagaaagt ggtggacgac ctccctggacc agatcacagg cggagaccac tctaggacgc
1140
tcttccagct gaagcagaga agaaatgttc ccatgaagcc tccagatgaa gccaaggttg
1200
gggacaccct aggagacagc agcagctctg ttctggagtt catgtcgatg aagtcctatc
1260
ccgacgtttc tgtggatatc tccatgctca gctctctggg gaagggtgaag aaggagctgg
1320
accctgacga cagccatttg aacttgatg agacgacgaa gtcctgcag gacctgcacg
1380
aagcacaggc ggagcgcggc ggctctcggc cgctcgtccaa cctcagctcc ctgtccaacg
1440

cctccgagag ggaccagcac cacctgggaa gcccttctcg cctgagtgtc ggggagcagc
1500
cagacgtcac ccacgacccc tatgagtttc ttcagctctcc agagcctgcg gcctctgccca
1560
agacctaaact ctagaccacc ttcagctctt ttattttatt tttttagttt tttttgcac
1620
gtgtagagtt tttgtcatca gacaaggact ttgatcctgt cccctttggc atgcgggaag
1680
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1740
cgaaccctga ggagtggagt catacgcgaa ggccatatgg ccatcgtgtc agcagagaga
1800
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1860
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1920
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1980
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2040
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2100
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2160
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2220
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2280
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2329

<210> 3088

<211> 280

<212> PRT

<213> Homo sapiens

<400> 3088

Xaa	Glu	Lys	His	Leu	Asp	Asp	Glu	Glu	Arg	Arg	Lys	Arg	Lys	Glu	Glu
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Lys	Lys	Arg	Lys	Arg	Glu	Arg	Glu	His	Cys	Asp	Thr	Glu	Gly	Glu	Ala
			20					25					30		
Asp	Asp	Phe	Asp	Pro	Gly	Lys	Lys	Val	Glu	Val	Glu	Pro	Pro	Pro	Asp
		35				40					45				
Arg	Pro	Val	Arg	Ala	Cys	Arg	Thr	Gln	Gln	Pro	Glu	Met	Glu	Arg	Thr
	50				55					60					
His	Ile	Gln	Gln	Leu	Leu	Glu	His	Phe	Leu	Arg	Gln	Leu	Gln	Arg	Lys
65				70					75					80	
Asp	Pro	His	Gly	Phe	Phe	Ala	Phe	Pro	Val	Thr	Asp	Ala	Ile	Ala	Pro
			85					90					95		
Gly	Tyr	Ser	Met	Ile	Ile	Lys	His	Pro	Met	Asp	Phe	Gly	Thr	Met	Lys
			100					105					110		
Asp	Lys	Ile	Val	Ala	Asn	Glu	Tyr	Lys	Ser	Val	Thr	Glu	Phe	Lys	Ala
		115				120						125			
Asp	Phe	Lys	Leu	Met	Cys	Asp	Asn	Ala	Met	Thr	Tyr	Asn	Arg	Pro	Asp

130	135	140
Thr Val Tyr Tyr Lys	Leu Ala Lys Lys Ile Leu	His Ala Gly Phe Lys
145	150	155
Met Met Ser Lys Gln	Ala Ala Leu Leu Gly Asn	Glu Asp Thr Ala Val
165	170	175
Glu Glu Pro Val Pro	Glu Val Val Pro Val Gln	Val Glu Thr Ala Lys
180	185	190
Lys Ser Lys Lys Pro	Ser Arg Glu Val Ile Ser	Cys Met Phe Glu Pro
195	200	205
Glu Gly Asn Ala Cys	Ser Leu Thr Asp Ser	Thr Ala Glu Glu His Val
210	215	220
Leu Ala Leu Val Glu	His Ala Ala Asp Glu	Ala Arg Asp Arg Ile Asn
225	230	235
Arg Phe Leu Pro Gly	Gly Lys Met Gly Tyr	Leu Lys Arg Asn Gly Asp
245	250	255
Gly Ser Leu Leu Tyr	Ser Val Val Asn Thr	Ala Glu Pro Asn Ala Asp
260	265	270
Glu Glu Glu Thr His	Pro Val Thr	
275	280	

<210> 3089
 <211> 722
 <212> DNA
 <213> Homo sapiens

<400> 3089
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 120
 gcccttaciaa aggcggcaga gggaggatta tcttcacctg aattttcaga gctctgtatt
 180
 tggtaggct ctcaaataaa atcattatgc aacttgaag aaagtatcac gtctgctggg
 240
 agagatgacc tagagagctt ccagcttgag ataagtgggt ttttaaaga gatggcctgt
 300
 ccatactcgg tactcgtctc aggagacatt aaagagcgcc tcacaaaga ggatgactgc
 360
 ttgaaacttc tgttggtttt aagtacagaa cttcaagctt tacaatat acagaacaag
 420
 aaacataaaa attctcaatt agataaaaat agtgaagttt atcaggaagt tcaagctatg
 480
 tttgatacac ttggtatacc caagtcaaca acttctgaca ttccgcatat gctaaaccaa
 540
 gtggaatcaa aggtgaaaga tattctctca aaggtccaga aaaatcatgt gggaaaacca
 600
 ctactgaaaa tggatttaaa ttcagaacag gcggaacaac tggaaagaat caatgatgct
 660
 ctttctgtg aatatgagt cgcgcgacga atgttaatga aacgattaga tgtgactgta
 720
 ca
 722

<210> 3090

<211> 240
<212> PRT
<213> Homo sapiens

<400> 3090
Xaa Ala Leu Asp Gln Ala Thr Met Arg Gly Pro Glu Leu Gly Pro Glu
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Thr Ser Met Glu Gly Asp Val Leu Asp Thr Leu Glu Ala Leu Gly Tyr
20 25 30
Lys Gly Pro Leu Leu Glu Glu Gln Ala Leu Thr Lys Ala Ala Glu Gly
35 40 45
Gly Leu Ser Ser Pro Glu Phe Ser Glu Leu Cys Ile Trp Leu Gly Ser
50 55 60
Gln Ile Lys Ser Leu Cys Asn Leu Glu Glu Ser Ile Thr Ser Ala Gly
65 70 75 80
Arg Asp Asp Leu Glu Ser Phe Gln Leu Glu Ile Ser Gly Phe Leu Lys
85 90 95
Glu Met Ala Cys Pro Tyr Ser Val Leu Val Ser Gly Asp Ile Lys Glu
100 105 110
Arg Leu Thr Lys Lys Asp Asp Cys Leu Lys Leu Leu Leu Phe Leu Ser
115 120 125
Thr Glu Leu Gln Ala Leu Gln Ile Leu Gln Asn Lys Lys His Lys Asn
130 135 140
Ser Gln Leu Asp Lys Asn Ser Glu Val Tyr Gln Glu Val Gln Ala Met
145 150 155 160
Phe Asp Thr Leu Gly Ile Pro Lys Ser Thr Thr Ser Asp Ile Pro His
165 170 175
Met Leu Asn Gln Val Glu Ser Lys Val Lys Asp Ile Leu Ser Lys Val
180 185 190
Gln Lys Asn His Val Gly Lys Pro Leu Leu Lys Met Asp Leu Asn Ser
195 200 205
Glu Gln Ala Glu Gln Leu Glu Arg Ile Asn Asp Ala Leu Ser Cys Glu
210 215 220
Tyr Glu Cys Arg Arg Arg Met Leu Met Lys Arg Leu Asp Val Thr Val
225 230 235 240

<210> 3091
<211> 333
<212> DNA
<213> Homo sapiens

<400> 3091
acgcgtgaag ggggcggagg ggaaggaagc cctggggagc agctgctcac ccctttgcca
60
caccatcttg gcctggcagg ggtctgggac tgacagggag caccacaggc ccttggtacc
120
cccagggcga ccccttctgc caagtgtccc aaaatgattg ctaaatgcct ggctccccc
180
ctctttgact ccatctcttg gttccctctt tctgctgcca gctcccccga ctcttcctg
240
gggactcctt tttgtgtccc ccttctcccc tgcccctact gccaggcaga tccccttttc
300
ttccataccc atccctgcct ccctgctcgg ccg
333

<210> 3092
<211> 104
<212> PRT
<213> Homo sapiens

<400> 3092
Met Gly Met Glu Glu Lys Gly Ile Cys Leu Ala Val Gly Ala Gly Glu
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Lys Gly Asp Thr Lys Arg Ser Pro Gln Gly Arg Val Gly Gly Ala Gly
20 25 30
Ser Arg Lys Arg Glu Pro Arg Asp Gly Val Lys Glu Trp Gly Ser Gln
35 40 45
Ala Phe Ser Asn His Phe Gly Thr Leu Gly Arg Arg Gly Arg Pro Gly
50 55 60
Gly Thr Lys Gly Leu Gly Cys Ser Leu Ser Val Pro Asp Pro Cys Gln
65 70 75 80
Ala Lys Met Val Trp Gln Arg Gly Glu Gln Leu Leu Pro Arg Ala Ser
85 90 95
Phe Pro Ser Ala Pro Phe Thr Arg
100

<210> 3093
<211> 720
<212> DNA
<213> Homo sapiens

<400> 3093
nnaccggttt gtccaaggag gctggcctga ccacttacag cctgtccctg gctctggtgt
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gaggagcatt agggccagct cagggtcctc tggcttcaga gccagctggc gtgggcatcc
120
agggggcagc ctgtgggcag tgactctgtc tgtctttgga caggacaagg actgccatcc
180
accatggtga agctgggctg cagcttctct gggaagccag gtaaagaccc tggggaccag
240
gatggggctg ccatggacag tgtgcctctg atcagcccct tggacatcag ccagctccag
300
ccgccactcc ctgaccaggt ggtcatcaag acacagacag aataccagct gtcctcccca
360
gaccagcaga atttcctga cctggagggc cagaggctga actgcagcca cccagaggaa
420
gggcgcaggc tgcccaccgc acggatgac gccttcgcca tggcgctact gggctgcgtg
480
ctgatcatgt acaaggccat ctggtacgac cagttcacct gcccgcacgg cttcctgctg
540
cggcacaaga tctgcacgcc gctgaccctg gagatgtact acacggagat ggaccccgag
600
cgccaccgca gcatcctggc ggccatcggg gcctaccgc tgagccgcaa gcacggcacg
660
gagacgccgg cggcctgggg ggacggctac cgcgcagcca aggaggagcg caaggggccc
720

<210> 3094

<211> 179
<212> PRT
<213> Homo sapiens

<400> 3094
Met Val Lys Leu Gly Cys Ser Phe Ser Gly Lys Pro Gly Lys Asp Pro
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Gly Asp Gln Asp Gly Ala Ala Met Asp Ser Val Pro Leu Ile Ser Pro
20 25 30
Leu Asp Ile Ser Gln Leu Gln Pro Pro Leu Pro Asp Gln Val Val Ile
35 40 45
Lys Thr Gln Thr Glu Tyr Gln Leu Ser Ser Pro Asp Gln Gln Asn Phe
50 55 60
Pro Asp Leu Glu Gly Gln Arg Leu Asn Cys Ser His Pro Glu Glu Gly
65 70 75 80
Arg Arg Leu Pro Thr Ala Arg Met Ile Ala Phe Ala Met Ala Leu Leu
85 90 95
Gly Cys Val Leu Ile Met Tyr Lys Ala Ile Trp Tyr Asp Gln Phe Thr
100 105 110
Cys Pro Asp Gly Phe Leu Leu Arg His Lys Ile Cys Thr Pro Leu Thr
115 120 125
Leu Glu Met Tyr Tyr Thr Glu Met Asp Pro Glu Arg His Arg Ser Ile
130 135 140
Leu Ala Ala Ile Gly Ala Tyr Pro Leu Ser Arg Lys His Gly Thr Glu
145 150 155 160
Thr Pro Ala Ala Trp Gly Asp Gly Tyr Arg Ala Ala Lys Glu Glu Arg
165 170 175
Lys Gly Pro

<210> 3095
<211> 519
<212> DNA
<213> Homo sapiens

<400> 3095
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agaccccagc agcaggcctc agctcatgtg actcggccct ctaagaggcc cagcaagata
120
gggtttgacg aggtctttgt catcagcctg gctcgcaggc ctgaccgtcg ggaacgcatg
180
ctcgccctcg tctgggagat ggagatctct gggaggggtg tggatgctgt ggatggctgg
240
atgctcaaca gcagtgccat caggaacctc ggcgtagacc tgctcccggg ctaccaggac
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360
atctgggaag agcgagcagt acaaggcaca cttctggcca cgggacctgg tggccttctc
420
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480
cacggagaca tcctctccat gggatgatgc cagcggccg
519

<210> 3096
<211> 159
<212> PRT
<213> Homo sapiens

<400> 3096
Gly Gly Ile Ser Pro Ala His Ser Cys Thr His Ser Gly Ala His Cys
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Thr Arg Gly Arg Arg Pro Gln Gln Gln Ala Ser Ala His Val Thr Arg
20 25 30
Pro Ser Lys Arg Pro Ser Lys Ile Gly Phe Asp Glu Val Phe Val Ile
35 40 45
Ser Leu Ala Arg Arg Pro Asp Arg Arg Glu Arg Met Leu Ala Ser Leu
50 55 60
Trp Glu Met Glu Ile Ser Gly Arg Val Val Asp Ala Val Asp Gly Trp
65 70 75 80
Met Leu Asn Ser Ser Ala Ile Arg Asn Leu Gly Val Asp Leu Leu Pro
85 90 95
Gly Tyr Gln Asp Pro Tyr Ser Gly Arg Thr Leu Thr Lys Gly Glu Val
100 105 110
Gly Cys Phe Leu Ser His Tyr Ser Ile Trp Glu Glu Arg Ala Val Gln
115 120 125
Gly Thr Leu Leu Ala Thr Gly Pro Gly Gly Leu Leu Arg Pro Ala Pro
130 135 140
Ala Arg Cys Pro Tyr Pro Leu Cys Arg Gly Arg Arg Val Ala Gln
145 150 155

<210> 3097
<211> 4953
<212> DNA
<213> Homo sapiens

<400> 3097
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ggcggccgag gggaccgggc cagggccggg ggcggcggcc cgagccgcgg tagcggcggc
120
ggcgggaggg gcggcctgag ggcggacggg cgggcgcccc ggttgcgggg gctcggtgcc
180
gctccgcact gcccgccgg tctcgcccc ggcgccatga gtggcgggcg cggcgagggg
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300
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360
gatggtgcca gccctttcat ttcaagtacg actgaaggag aaaattttga gcagacacca
420
ttgagaagaa cattcaaate taaggtcctt gcacgatatc ctgagaacgt agaatggaat
480
ccctttgacc aagatgcagt aggaatgcta tgtatgccga aagggtggc attcaagacc
540
caggctgac ccaggagacc ccaattccat gcctttatta tcacaaggga ggatggctct
600

cggacatttg ggtttgccct cacattttat gaagagggtga ctagcaagca gatctgcagt
660
gcaatgcaga ccctctacca catgcacaat gctgagtatg atgtcctaca tgctccccct
720
gctgatgaca gagaccagag cagcatggag gatgggtgaag acactcctgt gaccaaactg
780
cagcgcttca actcctatga cattagccgg gacactctct acgtctctaa gtgcatctgc
840
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900
gcagtcactt cacctcagcc ccctccactg ccccttgaga gctacatata caacgtactc
960
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1020
ataatctgcc agagaccaag taccaatgag ctccccctat ttgactttcc tgtcaaagag
1080
gtttttgaac tgctcggggc ggagaatgtg tttcagcttt ttacttgtgc ccttctggag
1140
tttcaaatcc tgctctactc acagcattac cagagactga tgactgtggc ggagacgatt
1200
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1260
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1320
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1380
aaccatttca ttgagttgcc agaggacttg ccacagttcc ccaacaaatt ggagtttgc
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agtgagagtg cctccaagct gaagaggctg cgggcctctg agcttgtctc ggacaagagg
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1620
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1680
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1800
gcagattatg aggtgtttgt catccaaccc agccaggata aggaatcctg gtttaccac
1860
agggagcaaa tgcaaaactt tgataaagca tcttttctgt cagatcagcc tgagccctac
1920
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 Gly Val Leu Asp Arg Arg Asp Ser Ala Ala Leu Arg Thr Pro Arg Lys
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 Phe Tyr Tyr Ile Thr Leu Leu Arg Asp Pro Val Ser Arg Tyr Leu Ser
 180 185 190
 Glu Trp Arg His Val Gln Arg Gly Ala Thr Trp Lys Thr Ser Leu His
 195 200 205
 Met Cys Asp Gly Arg Thr Pro Thr Pro Glu Glu Leu Pro Pro Cys Tyr
 210 215 220
 Glu Gly Thr Asp Trp Ser Gly Cys Thr Leu Gln Glu Phe Met Asp Cys
 225 230 235 240
 Pro Tyr Asn Leu Ala Asn Asn Arg Gln Val Arg Met Leu Ala Asp Leu
 245 250 255
 Ser Leu Val Gly Cys Tyr Asn Leu Ser Phe Ile Pro Glu Gly Lys Arg
 260 265 270
 Ala Gln Leu Leu Leu Glu Ser Ala Lys Lys Asn Leu Arg Gly Met Ala
 275 280 285
 Phe Phe Gly Leu Thr Glu Phe Gln Arg Lys Thr Gln Tyr Leu Phe Glu
 290 295 300
 Arg Thr Phe Asn Leu Lys Phe Ile Arg Pro Phe Met Gln Tyr Asn Ser
 305 310 315 320
 Thr Arg Ala Gly Gly Val Glu Val Asp Glu Asp Thr Ile Arg Arg Ile
 325 330 335
 Glu Glu Leu Asn Asp Leu Asp Met Gln Leu Tyr Asp Tyr Ala Lys Asp
 340 345 350
 Leu Phe Gln Gln Arg Tyr Gln Tyr Lys Arg Gln Leu Glu Arg Arg Glu
 355 360 365
 Gln Arg Leu Arg Ser Arg Glu Glu Arg Leu Leu His Arg Ala Lys Glu

370 375 380
Ala Leu Pro Arg Glu Asp Ala Asp Glu Pro Gly Arg Val Pro Thr Glu
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Asp Tyr Met Ser His Ile Ile Glu Lys Trp
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<210> 3103
<211> 1228
<212> DNA
<213> Homo sapiens

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caaccccgtt gggacactag gccgcggctg ggggaagcgg gagggagaat gttatcccc
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240
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300
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360
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420
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540
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1080
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1228

<210> 3104
<211> 144
<212> PRT
<213> Homo sapiens

<400> 3104
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20 25 30
Pro Gly Gly Arg Leu Arg Thr Arg Arg Pro Ala Thr Ile Leu Ser Val
35 40 45
Ala Ala Ala Trp Gln Arg Ala Ser Leu Gly Gln Trp Xaa Arg Arg Pro
50 55 60
Val Ala Ala Leu Ala Pro Tyr Ser Asp Ser Leu Val Glu Pro Leu Val
65 70 75 80
Cys Arg Leu Gln Val Leu Phe Leu Lys Lys Ala Gly Ser Glu Arg Pro
85 90 95
Cys Glu Thr Thr Pro Gly Ala Lys Gly Asp Ser His Lys Thr Gln Val
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Leu Leu Glu His Arg Lys Val Ser Leu Gln Val Glu Glu Gly Arg Glu
115 120 125
Ser Ser Phe Pro His Leu His Gly Cys Leu Val Ala Arg Ile Arg Cys
130 135 140

<210> 3105
<211> 4924
<212> DNA
<213> Homo sapiens

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120
cggagcgaga agcccagata gacgccccgg cggccccggg tcctggagtc ccgcgcctg
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ctgcccggcc gaggaccca cccgcctgc cgcgcgatgc ttgcagtggg gccgcctatg
240
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300
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aacc
4924

<210> 3106
<211> 1366
<212> PRT
<213> Homo sapiens

<400> 3106
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Ala Met Leu His Cys Pro Tyr Trp Asn Thr Phe Ser Leu Pro Pro Tyr
35 40 45
Pro Ala Phe Ser Ser Asp Ser Arg Pro Phe Met Ser Ser Ala Ser Phe
50 55 60
Leu Gly Ser Gln Pro Cys Pro Asp Thr Ser Tyr Ala Pro Val Ala Thr
65 70 75 80
Ala Ser Ser Leu Pro Pro Lys Thr Cys Asp Phe Ala Gln Asp Ser Ser

85 90 95
Tyr Phe Glu Asp Phe Ser Asn Ile Ser Ile Phe Ser Ser Ser Val Asp
100 105 110
Ser Leu Ser Asp Ile Val Asp Thr Pro Asp Phe Leu Pro Ala Asp Ser
115 120 125
Leu Asn Gln Val Ser Thr Ile Trp Asp Asp Asn Pro Ala Pro Ser Thr
130 135 140
His Asp Lys Leu Phe Gln Leu Ser Arg Pro Phe Ala Gly Phe Glu Asp
145 150 155 160
Phe Leu Pro Ser His Ser Thr Pro Leu Leu Val Ser Tyr Gln Glu Gln
165 170 175
Ser Val Gln Ser Gln Pro Glu Glu Glu Asp Glu Ala Glu Glu Glu Glu
180 185 190
Ala Glu Glu Leu Gly His Thr Glu Thr Tyr Ala Asp Tyr Val Pro Ser
195 200 205
Lys Ser Lys Ile Gly Lys Gln His Pro Asp Arg Val Val Glu Thr Ser
210 215 220
Thr Leu Ser Ser Val Pro Pro Pro Asp Ile Thr Tyr Thr Leu Ala Leu
225 230 235 240
Pro Ser Asp Ser Gly Ala Leu Ser Ala Leu Gln Leu Glu Ala Ile Thr
245 250 255
Tyr Ala Cys Gln Gln His Glu Val Leu Leu Pro Ser Gly Gln Arg Ala
260 265 270
Gly Phe Leu Ile Gly Asp Gly Ala Gly Val Gly Lys Gly Arg Thr Val
275 280 285
Ala Gly Val Ile Leu Glu Asn His Leu Arg Gly Arg Lys Lys Ala Leu
290 295 300
Trp Phe Ser Val Ser Asn Asp Leu Lys Tyr Asp Ala Glu Arg Asp Leu
305 310 315 320
Arg Asp Ile Glu Ala Thr Gly Ile Ala Val His Ala Leu Ser Lys Ile
325 330 335
Lys Tyr Gly Asp Thr Thr Thr Ser Glu Gly Val Leu Phe Ala Thr Tyr
340 345 350
Ser Ala Leu Ile Gly Glu Ser Gln Ala Gly Gly Gln His Arg Thr Arg
355 360 365
Leu Arg Gln Ile Leu Asp Trp Cys Gly Glu Ala Phe Glu Gly Val Ile
370 375 380
Val Phe Asp Glu Cys His Lys Ala Lys Asn Ala Gly Ser Thr Lys Met
385 390 395 400
Gly Lys Ala Val Leu Asp Leu Gln Asn Lys Leu Pro Leu Ala Arg Val
405 410 415
Val Tyr Ala Ser Ala Thr Gly Thr Ser Glu Pro Arg Asn Met Ile Tyr
420 425 430
Met Ser Arg Leu Gly Ile Trp Gly Glu Gly Thr Pro Phe Arg Asn Phe
435 440 445
Glu Glu Phe Leu His Ala Ile Glu Lys Arg Gly Val Gly Ala Met Glu
450 455 460
Ile Val Ala Met Asp Met Lys Val Ser Gly Met Tyr Ile Ala Arg Gln
465 470 475 480
Leu Ser Phe Ser Gly Val Thr Phe Arg Ile Glu Glu Ile Pro Leu Ala
485 490 495
Pro Ala Phe Glu Cys Val Tyr Asn Arg Ala Ala Leu Leu Trp Ala Glu
500 505 510
Ala Leu Asn Val Phe Gln Gln Ala Ala Asp Trp Ile Gly Leu Glu Ser

515	520	525
Arg Lys Ser Leu Trp Gly	Gln Phe Trp Ser Ala His	Gln Arg Phe Phe
530	535	540
Lys Tyr Leu Cys Ile Ala	Ala Lys Val Arg Arg	Leu Val Glu Leu Ala
545	550	555
Arg Glu Glu Leu Ala Arg	Asp Lys Cys Val Val	Ile Gly Leu Gln Ser
565	570	575
Thr Gly Glu Ala Arg Thr	Arg Glu Val Leu Gly	Glu Asn Asp Gly His
580	585	590
Leu Asn Cys Phe Val Ser	Ala Ala Glu Gly Val	Phe Leu Ser Leu Ile
595	600	605
Gln Lys His Phe Pro Ser	Thr Lys Arg Lys Arg	Asp Arg Gly Ala Gly
610	615	620
Ser Lys Arg Lys Arg Arg	Pro Arg Gly Arg Gly	Ala Lys Ala Pro Arg
625	630	635
Leu Ala Cys Glu Thr Ala	Gly Val Ile Arg Ile	Ser Asp Asp Ser Ser
645	650	655
Thr Glu Ser Asp Pro Gly	Leu Asp Ser Asp Phe	Asn Ser Ser Pro Glu
660	665	670
Ser Leu Val Asp Asp Asp	Val Val Ile Val Asp	Ala Val Gly Leu Pro
675	680	685
Ser Asp Asp Arg Gly Ser	Leu Cys Leu Leu Gln	Arg Asp Pro His Gly
690	695	700
Pro Gly Val Leu Glu Arg	Val Glu Arg Leu Lys	Gln Asp Leu Leu Asp
705	710	715
Lys Val Arg Arg Leu Gly	Arg Glu Leu Pro Val	Asn Thr Leu Asp Glu
725	730	735
Leu Ile Asp Gln Leu Gly	Gly Pro Gln Arg Val	Ala Glu Met Thr Gly
740	745	750
Arg Lys Gly Arg Val Val	Ser Arg Pro Asp Gly	Thr Val Ala Phe Glu
755	760	765
Ser Arg Ala Glu Gln Gly	Leu Ser Ile Asp His	Val Asn Leu Arg Glu
770	775	780
Lys Gln Arg Phe Met Ser	Gly Glu Lys Leu Val	Ala Ile Ile Ser Glu
785	790	795
Ala Ser Ser Ser Gly Val	Ser Leu Gln Ala Asp	Arg Arg Val Gln Asn
805	810	815
Gln Arg Arg Arg Val His	Met Thr Leu Glu Leu	Pro Trp Ser Ala Asp
820	825	830
Arg Ala Ile Gln Gln Phe	Gly Arg Thr His Arg	Ser Asn Gln Val Ser
835	840	845
Ala Pro Glu Tyr Val Phe	Leu Ile Ser Glu Leu	Ala Gly Glu Arg Arg
850	855	860
Phe Ala Ser Ile Val Ala	Lys Arg Leu Glu Ser	Leu Gly Ala Leu Thr
865	870	875
His Gly Asp Arg Arg Ala	Thr Glu Ser Arg Asp	Leu Ser Lys Tyr Asn
885	890	895
Phe Glu Asn Lys Tyr Gly	Thr Arg Ala Leu His	Cys Val Leu Thr Thr
900	905	910
Ile Leu Ser Gln Thr Glu	Asn Lys Val Pro Val	Pro Gln Gly Tyr Pro
915	920	925
Gly Gly Val Pro Thr Phe	Phe Arg Asp Met Lys	Gln Gly Leu Leu Ser
930	935	940
Val Gly Ile Gly Gly Arg	Glu Ser Arg Asn Gly	Cys Leu Asp Val Glu

945 950 955 960
Lys Asp Cys Ser Ile Thr Lys Phe Leu Asn Arg Ile Leu Gly Leu Glu
 965 970 975
Val His Lys Lys Gln Asn Ala Leu Phe Gln Tyr Phe Ser Asp Thr Phe Asp
 980 985 990
His Leu Ile Glu Met Asp Lys Arg Glu Gly Lys Tyr Asp Met Gly Ile
 995 1000 1005
Leu Asp Leu Ala Pro Gly Ile Glu Glu Ile Tyr Glu Glu Ser Gln Gln
 1010 1015 1020
Val Phe Leu Ala Pro Gly His Pro Gln Asp Gly Gln Val Val Phe Tyr
1025 1030 1035 1040
Lys Ile Ser Val Asp Arg Gly Leu Lys Trp Glu Asp Ala Phe Ala Lys
 1045 1050 1055
Ser Leu Ala Leu Thr Gly Pro Tyr Asp Gly Phe Tyr Leu Ser Tyr Lys
 1060 1065 1070
Val Arg Gly Asn Lys Pro Ser Cys Leu Leu Ala Glu Gln Asn Arg Gly
 1075 1080 1085
Gln Phe Phe Thr Val Tyr Lys Pro Asn Ile Gly Arg Gln Ser Gln Leu
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Glu Ala Leu Asp Ser Leu Arg Arg Lys Phe His Arg Val Thr Ala Glu
1105 1110 1115 1120
Glu Ala Lys Glu Pro Trp Glu Ser Gly Tyr Ala Leu Ser Leu Thr His
 1125 1130 1135
Cys Ser His Ser Ala Trp Asn Arg His Cys Arg Leu Ala Gln Glu Gly
 1140 1145 1150
Lys Asp Cys Leu Gln Gly Leu Arg Leu Arg His His Tyr Met Leu Cys
 1155 1160 1165
Gly Ala Leu Leu Arg Val Trp Gly Arg Ile Ala Ala Val Met Ala Asp
 1170 1175 1180
Val Ser Ser Ser Ser Tyr Leu Gln Ile Val Arg Leu Lys Thr Lys Asp
1185 1190 1195 1200
Arg Lys Lys Lys Gln Val Gly Ile Lys Ile Pro Glu Gly Cys Val Arg Arg
 1205 1210 1215
Val Leu Gln Glu Leu Arg Leu Met Asp Ala Asp Val Lys Arg Arg Gln
 1220 1225 1230
Ala Pro Ala Leu Gly Cys Pro Ala Pro Pro Ala Pro Arg Pro Leu Ala
 1235 1240 1245
Leu Pro Cys Gly Pro Gly Glu Val Leu Asp Leu Thr Tyr Ser Pro Pro
 1250 1255 1260
Ala Glu Ala Phe Pro Pro Pro Pro His Phe Ser Phe Pro Ala Pro Leu
1265 1270 1275 1280
Ser Leu Asp Ala Gly Pro Gly Val Val Pro Leu Gly Thr Pro Asp Ala
 1285 1290 1295
Gln Ala Asp Pro Ala Ala Leu Ala His Gln Gly Cys Asp Ile Asn Phe
 1300 1305 1310
Lys Glu Val Leu Glu Asp Met Leu Arg Ser Leu His Ala Gly Pro Pro
 1315 1320 1325
Ser Glu Gly Ala Leu Gly Glu Gly Ala Gly Ala Gly Gly Ala Ala Gly
 1330 1335 1340
Gly Gly Pro Glu Arg Gln Ser Val Ile Gln Phe Ser Pro Pro Phe Pro
1345 1350 1355 1360
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 1365

<210> 3107
<211> 2102
<212> DNA
<213> Homo sapiens

<400> 3107
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2102

<210> 3108
<211> 517
<212> PRT
<213> Homo sapiens

<400> 3108
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Pro Lys His Trp Thr Lys Glu Arg His Gln Phe Leu Met Glu Leu Lys
35 40 45
Gln Glu Ala Leu Thr Phe Ala Arg Asn Trp Gly Ala Asp Tyr Ile Leu
50 55 60
Phe Ala Asp Thr Asp Asn Ile Leu Thr Asn Asn Gln Thr Leu Arg Leu
65 70 75 80
Leu Met Gly Gln Gly Leu Pro Val Val Ala Pro Met Leu Asp Ser Gln
85 90 95
Thr Tyr Tyr Ser Asn Phe Trp Cys Gly Ile Thr Pro Gln Gly Tyr Tyr
100 105 110
Arg Arg Thr Ala Glu Tyr Phe Pro Thr Lys Asn Arg Gln Arg Arg Gly
115 120 125
Cys Phe Arg Val Pro Met Val His Ser Thr Phe Leu Ala Ser Leu Arg
130 135 140
Ala Glu Gly Ala Asp Gln Leu Ala Phe Tyr Pro Pro His Pro Asn Tyr
145 150 155 160
Thr Trp Pro Phe Asp Asp Ile Ile Val Phe Ala Tyr Ala Cys Gln Ala
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Ala Gly Val Ser Val His Val Cys Asn Glu His Arg Tyr Gly Tyr Met

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<210> 3109
<211> 959
<212> DNA
<213> Homo sapiens
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2330

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<210> 3110

<211> 207

<212> PRT

<213> Homo sapiens

<400> 3110

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			20					25					30		
Trp	Ser	Pro	Asp	Gly	Arg	His	Ile	Leu	Asn	Thr	Thr	Glu	Phe	His	Leu
		35					40					45			
Arg	Ile	Thr	Val	Trp	Ser	Leu	Cys	Thr	Lys	Ser	Val	Ser	Tyr	Ile	Lys
	50					55					60				
Tyr	Pro	Lys	Ala	Cys	Leu	Gln	Gly	Ile	Thr	Phe	Thr	Arg	Asp	Gly	Arg
65					70				75					80	
Tyr	Met	Ala	Leu	Ala	Glu	Arg	Arg	Asp	Cys	Lys	Asp	Tyr	Val	Ser	Ile
			85					90					95		
Phe	Val	Cys	Ser	Asp	Trp	Gln	Leu	Leu	Arg	His	Phe	Asp	Thr	Asp	Thr
			100					105					110		
Gln	Asp	Leu	Thr	Gly	Ile	Glu	Trp	Ala	Pro	Asn	Gly	Cys	Val	Leu	Ala
	115						120					125			
Val	Trp	Asp	Thr	Cys	Leu	Glu	Tyr	Lys	Ile	Leu	Leu	Tyr	Ser	Leu	Asp
	130					135				140					
Gly	Arg	Leu	Leu	Ser	Thr	Tyr	Ser	Ala	Xaa	Arg	Val	Val	Xaa	Leu	Gly

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Ile	Lys	Ser	Val	Ala	Trp	Ser	Pro	Ser	Ser	Gln	Phe	Leu	Ala	Val	Gly
			165				170						175		
Ser	Tyr	Asp	Gly	Lys	Val	Arg	Ile	Leu	Asn	His	Val	Thr	Trp	Lys	Met
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Ile	Thr	Glu	Phe	Gly	His	Pro	Cys	Ser	Pro	Ile	Asn	Asp	Ser	Gln	
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<210> 3111
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 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 240
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 300
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 360
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 420
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 480
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 660
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 780
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 1140
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1269

<210> 3112
<211> 151
<212> PRT
<213> Homo sapiens

<400> 3112
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20 25 30
Glu Gly Arg Arg Gly Ala Arg Thr Ala Gly Leu Arg Gly Arg Pro Trp
35 40 45
Arg Asp Trp Glu Glu Arg Arg Gly Val Thr Thr Val Gln His Pro Glu
50 55 60
Lys Ser Asp Trp Gln Thr Arg Thr Gly Gln Pro Cys Ser Cys Met Ile
65 70 75 80
Gln Glu Leu Ala Ser Glu Arg Glu Ser Val Ala Glu Ala Gly Gly Ser
85 90 95
Ala Arg Gln Lys Val Arg Gly Leu Val Leu Arg Arg Gly Lys Arg Gln
100 105 110
Ser Glu Ser Leu His Ala Pro Gly Leu His Gly Arg Ala Arg Ala Ser
115 120 125
Gln Lys Arg Val Asn Asp Pro Glu Cys Asp Trp Glu Gly Glu Leu Ile
130 135 140
Pro Tyr Gln Glu Thr Gly Ser
145 150

<210> 3113
<211> 631
<212> DNA
<213> Homo sapiens

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120
ccaaaaggga aggagatagt aagcctgctg gaaagaaaca tcaccgtgac aatgtacatc
180
accatcgga cccggaactt gcagaaatat gtgagccgca ctccggttgt gtttgtctcc
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420
gattttgaca actgtgcagt ttgtattgaa gggtagaagc ccaatgacgt tgtccggatc
480

ctgccctgcc ggcatctttt ccacaagtcc tgtgttgacc cctggcttct agaccatcgt
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<210> 3114
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<212> PRT
<213> Homo sapiens

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35 40 45
Leu Leu Glu Arg Asn Ile Thr Val Thr Met Tyr Ile Thr Ile Gly Thr
50 55 60
Arg Asn Leu Gln Lys Tyr Val Ser Arg Thr Ser Val Val Phe Val Ser
65 70 75 80
Ile Ser Phe Ile Val Leu Met Ile Ile Ser Leu Ala Trp Leu Val Phe
85 90 95
Tyr Tyr Ile Gln Arg Phe Arg Tyr Ala Asn Ala Arg Asp Arg Asn Gln
100 105 110
Arg Arg Leu Gly Asp Ala Ala Lys Lys Ala Ile Ser Lys Leu Gln Ile
115 120 125
Arg Thr Ile Lys Lys Gly Asp Lys Glu Thr Glu Ser Asp Phe Asp Asn
130 135 140
Cys Ala Val Cys Ile Glu Gly Tyr Lys Pro Asn Asp Val Val Arg Ile
145 150 155 160
Leu Pro Cys Arg His Leu Phe His Lys Ser Cys Val Asp Pro Trp Leu
165 170 175
Leu Asp His Arg Thr Cys Pro Met Cys Lys Met Asn Ile Leu Lys Ala
180 185 190
Leu Gly Ile Pro Pro Asn Ala Asp Cys Met Asp Asp Phe Ala Thr Asp
195 200 205
Phe Glu
210

<210> 3115
<211> 1366
<212> DNA
<213> Homo sapiens

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180

ctatactttg cacaatcaga gaatatagct gctcatgaga attgtttgct gtattcttca
240
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420
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480
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540
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1020
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1140
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<210> 3116

<211> 191

<212> PRT

<213> Homo sapiens

<400> 3116

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			20					25					30		
Leu	Leu	Tyr	Ser	Ser	Gly	Leu	Val	Glu	Cys	Glu	Asp	Gln	Asp	Pro	Leu
			35				40					45			
Asn	Pro	Asp	Arg	Ser	Phe	Asp	Val	Glu	Ser	Val	Lys	Lys	Glu	Ile	Gln

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      50      55      60
Arg Gly Arg Lys Leu Lys Cys Lys Phe Cys His Lys Arg Gly Ala Thr
65      70      75      80
Val Gly Cys Asp Leu Lys Asn Cys Asn Lys Asn Tyr His Phe Phe Cys
      85      90      95
Ala Lys Lys Asp Asp Ala Val Pro Gln Ser Asp Gly Val Arg Gly Ile
      100      105      110
Tyr Lys Leu Leu Cys Gln Gln His Ala Gln Phe Pro Ile Ile Ala Gln
      115      120      125
Ser Gly Lys Phe Ser Gly Val Lys Arg Lys Arg Gly Arg Lys Lys Pro
      130      135      140
Leu Ser Gly Asn His Val Gln Pro Pro Glu Thr Met Lys Cys Asn Thr
145      150      155      160
Phe Ile Arg Gln Val Lys Glu Glu His Gly Arg His Thr Asp Ala Thr
      165      170      175
Val Lys Val Pro Phe Leu Lys Lys Cys Lys Xaa Ser Arg Thr Ser
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<210> 3117

<211> 1373

<212> DNA

<213> Homo sapiens

<400> 3117

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900

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<210> 3118

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3118

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			20					25					30		
Ala	Asp	Thr	Val	His	Leu	Ala	Val	Glu	Phe	Phe	Asn	Leu	Thr	His	Leu
		35					40					45			
Pro	Ala	Asn	Leu	Leu	Gln	Gly	Ala	Ser	Lys	Leu	Gln	Glu	Leu	His	Leu
	50				55						60				
Ser	Ser	Asn	Gly	Leu	Glu	Ser	Leu	Ser	Pro	Glu	Phe	Leu	Arg	Pro	Val
65				70						75				80	
Pro	Gln	Leu	Arg	Val	Leu	Asp	Leu	Thr	Arg	Asn	Ala	Leu	Thr	Gly	Leu
			85					90						95	
Pro	Pro	Gly	Leu	Phe	Gln	Ala	Ser	Ala	Thr	Leu	Asp	Thr	Leu	Val	Leu
		100						105					110		
Lys	Glu	Asn	Gln	Leu	Glu	Val	Leu	Glu	Val	Ser	Trp	Leu	His	Gly	Leu
		115					120					125			
Lys	Ala	Leu	Gly	His	Leu	Asp	Leu	Ser	Gly	Asn	Arg	Leu	Arg	Lys	Leu
	130					135					140				
Pro	Pro	Gly	Leu	Leu	Ala	Asn	Phe	Thr	Leu	Leu	Arg	Thr	Leu	Asp	Leu
145				150						155				160	
Gly	Glu	Asn	Gln	Leu	Glu	Thr	Leu	Pro	Pro	Asp	Leu	Leu	Arg	Gly	Pro
			165					170						175	
Leu	Gln	Leu	Glu	Arg	Leu	His	Leu	Glu	Gly	Asn	Lys	Leu	Gln	Val	Leu
		180						185					190		
Gly	Lys	Asp	Leu	Leu	Leu	Pro	Gln	Pro	Asp	Leu	Arg	Tyr	Leu	Phe	Leu
	195					200						205			
Ser	Gly	Asn	Lys	Leu	Ala	Arg	Val	Ala	Ala	Gly	Ala	Phe	Gln	Gly	Leu
	210					215						220			
Arg	Gln	Leu	Asp	Met	Leu	Asp	Leu	Ser	Asn	Asn	Ser	Leu	Ala	Ser	Val
225				230						235				240	
Pro	Glu	Gly	Leu	Trp	Ala	Ser	Leu	Gly	Gln	Pro	Asn	Trp	Asp	Met	Arg

245 250 255
Asp Gly Phe Asp Ile Ser Gly Asn Pro Trp Ile Cys Asp Gln Asn Leu
260 265 270
Ser Asp Leu Tyr Arg Trp Leu Gln Ala Gln Lys Asp Lys Met Phe Ser
275 280 285
Gln Asn Asp Thr Arg Cys Ala Gly Pro Glu Ala Val Lys Gly Gln Thr
290 295 300
Leu Leu Ala Val Ala Lys Ser Gln
305 310

<210> 3119
<211> 427
<212> DNA
<213> Homo sapiens

<400> 3119
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240
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300
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427

<210> 3120
<211> 142
<212> PRT
<213> Homo sapiens

<400> 3120
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Ile Gln Met Thr Ser Ala Glu Arg Ala Leu Ala Ala Ala Gln Arg Cys
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His Lys Lys Val Met Lys Glu Arg Tyr Val Glu Val Val Pro Cys Ser
35 40 45
Thr Glu Glu Met Ser Arg Val Leu Met Gly Gly Thr Leu Gly Arg Ser
50 55 60
Gly Met Ser Pro Pro Pro Cys Lys Leu Pro Cys Leu Ser Pro Pro Thr
65 70 75 80
Tyr Thr Thr Phe Gln Ala Thr Pro Thr Leu Ile Pro Thr Glu Thr Ala
85 90 95
Ala Leu Tyr Pro Ser Ser Ala Leu Leu Pro Ala Ala Arg Val Pro Ala
100 105 110
Ala Pro Thr Pro Val Ala Tyr Tyr Pro Gly Pro Ala Thr Gln Leu Tyr

115 120 125
Leu Asn Tyr Thr Ala Tyr Tyr Pro Ser Pro Glu Asp Asn Ala
130 135 140

<210> 3121
<211> 284
<212> DNA
<213> Homo sapiens

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180
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284

<210> 3122
<211> 91
<212> PRT
<213> Homo sapiens

<400> 3122
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Ser His Val Arg Arg Asn Lys Arg Asn Met Asn Leu Asp Gly Ala Ala
35 40 45
Ser Ile Val Pro Leu Leu Leu Leu Met Asn Lys Ala Ser Pro Glu
50 55 60
Tyr Glu Glu Asn Met His Arg Tyr Gln Lys Ala Ala Lys Leu Phe Arg
65 70 75 80
Gly Arg Phe Ser Leu Phe Trp Trp Thr Val Val
85 90

<210> 3123
<211> 344
<212> DNA
<213> Homo sapiens

<400> 3123
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gagattatga ggagccgcca agagatgaaa aaccgatca gtaacaagaa gaggaagaaa
120
gcagcccagg tgaccttcag aaagacattg gagaaggaag caaagggaga ggagcccagc
180
atcgaggtcc ccaagttcaa acagaggaag ggggagtcgg acggggccta tatccaccgc
240

atgcagcaag aggccagca tgtgctgttc ctcagcaaga accaggccat ccggcagcca
300
gaggtgcagg cagctcccaa ggagaagtct gagcagaaaa aagc
344

<210> 3124
<211> 92
<212> PRT
<213> Homo sapiens

<400> 3124
Met Arg Ser Arg Gln Glu Met Lys Asn Pro Ile Ser Asn Lys Lys Arg
1 5 10 15
Lys Lys Ala Ala Gln Val Thr Phe Arg Lys Thr Leu Glu Lys Glu Ala
20 25 30
Lys Gly Glu Glu Pro Asp Ile Ala Val Pro Lys Phe Lys Gln Arg Lys
35 40 45
Gly Glu Ser Asp Gly Ala Tyr Ile His Arg Met Gln Gln Glu Ala Gln
50 55 60
His Val Leu Phe Leu Ser Lys Asn Gln Ala Ile Arg Gln Pro Glu Val
65 70 75 80
Gln Ala Ala Pro Lys Glu Lys Ser Glu Gln Lys Lys
85 90

<210> 3125
<211> 647
<212> DNA
<213> Homo sapiens

<400> 3125
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120
ggtcagcagg cagtttagtt gtgggagtat ttccaatttg catgaatgaa acatggacaa
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ataagataag gctggctcca gggaagtaat tccccagtt ccctgagcc ttggatctgg
240
aaaactgcag cccatcctgg aattagggaa catcacaaaa cgtactgggg agaactcccc
300
atgtggcctc ggcccacgcc agaagccggg caaggtccca agtgccggct cgcccacaag
360
ctatggctaa gacagaaaaa caaaggaaaa aaagtcctcc ccaaacacac acataagcaa
420
aaccatctt cctgtgttct ctgccaagag agctggagca aaagagatga gtttgagact
480
ctgattcatc catcaagaca aataaactca gtctatggag gttagcaggg caatttgtga
540
agcaaacaaa agttgagttt tggaaagggg ctctgaagaa aatgaagatg acataccagg
600
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647

<210> 3126

<211> 116
 <212> PRT
 <213> Homo sapiens

<400> 3126
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 20 25 30
 His Arg Leu Ser Leu Phe Val Leu Met Asp Glu Ser Glu Ser Gln Thr
 35 40 45
 His Leu Phe Cys Ser Ser Ser Leu Gly Arg Glu His Arg Lys Met Gly
 50 55 60
 Phe Ala Tyr Val Cys Val Trp Gly Gly Leu Phe Phe Leu Cys Phe Ser
 65 70 75 80
 Val Leu Ala Ile Ala Cys Gly Arg Ala Gly Thr Trp Asp Leu Ala Arg
 85 90 95
 Leu Leu Ala Trp Ala Glu Ala Thr Trp Gly Val Leu Pro Ser Thr Phe
 100 105 110
 Cys Asp Val Pro
 115

<210> 3127
 <211> 2218
 <212> DNA
 <213> Homo sapiens

<400> 3127
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 120
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 180
 ggccctgggct tctccaacac catgtactca agactagggg agatcatcag catggatggg
 240
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 360
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 420
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 480
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 540
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 660
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 720
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 780

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900
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1020
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1320
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1920
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1980
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2040
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2100
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2160
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2218

<210> 3128

<211> 565

<212> PRT

<213> Homo sapiens

<400> 3128
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Gln Glu Gly Lys Ile Pro Asp Glu Thr Leu Glu Lys Leu Lys Ser Leu
35 40 45
Gly Leu Phe Gly Leu Gln Val Pro Glu Glu Tyr Gly Gly Leu Gly Phe
50 55 60
Ser Asn Thr Met Tyr Ser Arg Leu Gly Glu Ile Ile Ser Met Asp Gly
65 70 75 80
Ser Ile Thr Val Thr Leu Ala Ala His Gln Ala Ile Gly Leu Lys Gly
85 90 95
Ile Ile Leu Ala Gly Thr Glu Glu Gln Lys Ala Lys Tyr Leu Pro Lys
100 105 110
Leu Ala Ser Gly Glu His Ile Ala Ala Phe Cys Leu Thr Glu Pro Ala
115 120 125
Ser Gly Ser Asp Ala Ala Ser Ile Arg Ser Arg Ala Thr Leu Ser Glu
130 135 140
Asp Lys Lys His Tyr Ile Leu Asn Gly Ser Lys Val Trp Ile Thr Asn
145 150 155 160
Gly Gly Leu Ala Asn Ile Phe Thr Val Phe Ala Lys Thr Glu Val Val
165 170 175
Asp Ser Asp Gly Ser Val Lys Asp Lys Ile Thr Ala Phe Ile Val Glu
180 185 190
Arg Asp Phe Gly Gly Val Thr Asn Gly Lys Pro Glu Asp Lys Leu Gly
195 200 205
Ile Arg Gly Ser Asn Thr Cys Glu Val His Phe Glu Asn Thr Lys Ile
210 215 220
Pro Val Glu Asn Ile Leu Gly Glu Val Gly Asp Gly Phe Lys Val Ala
225 230 235 240
Met Asn Ile Leu Asn Ser Gly Arg Phe Ser Met Gly Ser Val Val Ala
245 250 255
Gly Leu Leu Lys Arg Leu Ile Glu Met Thr Ala Glu Tyr Ala Cys Thr
260 265 270
Arg Lys Gln Phe Asn Lys Arg Leu Ser Glu Phe Gly Leu Ile Gln Glu
275 280 285
Lys Phe Ala Leu Met Ala Gln Lys Ala Tyr Val Met Glu Ser Met Thr
290 295 300
Tyr Leu Thr Ala Gly Met Leu Asp Gln Pro Gly Phe Pro Asp Cys Ser
305 310 315 320
Ile Glu Ala Ala Met Val Lys Val Phe Ser Ser Glu Ala Ala Trp Gln
325 330 335
Cys Val Ser Glu Ala Leu Gln Ile Leu Gly Gly Leu Gly Tyr Thr Arg
340 345 350
Asp Tyr Pro Tyr Glu Arg Ile Leu Arg Asp Thr Arg Ile Leu Leu Ile
355 360 365
Phe Glu Gly Thr Asn Glu Ile Leu Arg Met Tyr Ile Ala Leu Thr Gly
370 375 380
Leu Gln His Ala Gly Arg Ile Leu Thr Thr Arg Ile His Glu Leu Lys
385 390 395 400
Gln Ala Lys Val Ser Thr Val Met Asp Thr Val Gly Arg Arg Leu Arg
405 410 415
Asp Ser Leu Gly Arg Thr Val Asp Leu Gly Leu Thr Gly Asn His Gly

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      420      425      430
Val Val His Pro Ser Leu Ala Asp Ser Ala Asn Lys Phe Glu Glu Asn
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      450      455      460
Lys Thr Ile Met Glu Glu Gln Leu Val Leu Lys Arg Val Ala Asn Ile
465      470      475      480
Leu Ile Asn Leu Tyr Gly Met Thr Ala Val Leu Ser Arg Ala Ser Arg
      485      490      495
Ser Ile Arg Ile Gly Leu Arg Asn His Asp His Glu Val Leu Leu Ala
      500      505      510
Asn Thr Phe Cys Val Glu Ala Tyr Leu Gln Asn Leu Phe Ser Leu Ser
      515      520      525
Gln Leu Asp Lys Tyr Ala Pro Glu Asn Leu Asp Glu Gln Ile Lys Lys
      530      535      540
Val Ser Gln Gln Ile Leu Glu Lys Arg Ala Tyr Ile Cys Ala His Pro
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Leu Asp Arg Thr Cys
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<210> 3129

<211> 1964

<212> DNA

<213> Homo sapiens

<400> 3129

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180
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240
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660
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720
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780
atccatcaca aaagttttgc acatgctcta cggaaacttc tgctgtgggc agtgtatccc
840

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actcgtcac tagagtctgg taaattgcc aagctggcag ttgagactcc tttagtttga
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960
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1140
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1680
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1964

<210> 3130

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3130

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			20				25				30				
Gly	Pro	Gly	Ala	Ala	Gln	Glu	Pro	Thr	Trp	Leu	Thr	Asp	Val	Pro	Ala
			35				40				45				
Ala	Met	Glu	Phe	Ile	Ala	Ala	Thr	Glu	Val	Ala	Val	Ile	Gly	Phe	Phe
	50				55					60					
Gln	Asp	Leu	Glu	Ile	Pro	Ala	Val	Pro	Ile	Leu	His	Ser	Met	Val	Gln

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65          70          75          80
Lys Phe Pro Gly Val Ser Phe Gly Ile Ser Thr Asp Ser Glu Val Leu
      85          90          95
Thr His Tyr Asn Ile Thr Gly Asn Thr Ile Cys Leu Phe Arg Leu Val
      100         105         110
Asp Asn Glu Gln Leu Asn Leu Glu Asp Glu Asp Ile Glu Ser Ile Asp
      115         120         125
Ala Thr Lys Leu Ser Arg Phe Ile Glu Ile Asn Ser Leu His Met Val
      130         135         140
Thr Glu Tyr Asn Pro Val Thr Val Ile Gly Leu Phe Asn Ser Val Ile
      145         150         155         160
Gln Ile His Leu Leu Leu Ile Met Asn Lys Ala Ser Pro Glu Tyr Glu
      165         170         175
Glu Asn Met His Arg Tyr Gln Lys Ala Ala Lys Leu Phe Gln Gly Lys
      180         185         190
Ile Leu Phe Ile Leu Val Asp Ser Gly Met Lys Glu Asn Gly Lys Val
      195         200         205
Ile Ser Phe Phe Lys Leu Lys Glu Ser Gln Leu Pro Ala Leu Ala Ile
      210         215         220
Tyr Gln Thr Leu Asp Asp Glu Trp Asp Thr Leu Pro Thr Ala Glu Val
      225         230         235         240
Ser Val Glu His Val Gln Asn Phe Cys Asp Gly Phe Leu Ser Gly Lys
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Leu Leu Lys Glu Asn Arg Glu Ser Lys Arg Lys Thr Pro Lys Val Glu
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<210> 3131
<211> 1544
<212> DNA
<213> Homo sapiens

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<400> 3131
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120
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180
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ggacacaaaa tcattttgtg ttggtctcgg aaagaggggtc gtggtcccgc acggatgcgc
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360
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420
cttcacacac acggcagcac cggcaccgcg gagggaggaa acatgtccc gctgtctctc
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540
aatccaatg cgcctgtcca cattgatgtg ggcggccaca tgtacaccag cagcctggcc
600

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accctcacca aataccctga atccagaatc ggaagacttt ttgatgggtac agagcccatt
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 720
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 1380
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 1440
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 1544

<210> 3132
 <211> 283
 <212> PRT
 <213> Homo sapiens

<400> 3132
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 Thr Arg Ser Pro Val Ser Pro Leu Ala Ala Gln Gly Ile Pro Leu Pro
 35 40 45
 Ala Gln Leu Thr Lys Ser Asn Ala Pro Val His Ile Asp Val Gly Gly
 50 55 60
 His Met Tyr Thr Ser Ser Leu Ala Thr Leu Thr Lys Tyr Pro Glu Ser
 65 70 75 80
 Arg Ile Gly Arg Leu Phe Asp Gly Thr Glu Pro Ile Val Leu Asp Ser
 85 90 95
 Leu Lys Gln His Tyr Phe Ile Asp Arg Asp Gly Gln Met Phe Arg Tyr
 100 105 110
 Ile Leu Asn Phe Leu Arg Thr Ser Lys Leu Leu Ile Pro Asp Asp Phe

115	120	125
Lys Asp Tyr Thr Leu Leu Tyr Glu Glu Ala Lys Tyr Phe Gln Leu Gln		
130	135	140
Pro Met Leu Leu Glu Met Glu Arg Trp Lys Gln Asp Arg Glu Thr Gly		
145	150	155
Arg Phe Ser Arg Pro Cys Glu Cys Leu Val Val Arg Val Ala Pro Asp		
165	170	175
Leu Gly Glu Arg Ile Thr Leu Ser Gly Asp Lys Ser Leu Ile Glu Glu		
180	185	190
Val Phe Pro Glu Ile Gly Asp Val Met Cys Asn Ser Val Asn Ala Gly		
195	200	205
Trp Asn His Asp Ser Thr His Val Ile Arg Phe Pro Leu Asn Gly Tyr		
210	215	220
Cys His Leu Asn Ser Val Gln Val Leu Glu Arg Leu Gln Gln Arg Gly		
225	230	235
Phe Glu Ile Val Gly Ser Cys Gly Gly Gly Val Asp Ser Ser Gln Phe		
245	250	255
Ser Glu Tyr Val Leu Arg Arg Glu Leu Arg Arg Thr Pro Arg Val Pro		
260	265	270
Ser Val Ile Arg Ile Lys Gln Glu Pro Leu Asp		
275	280	

<210> 3133
 <211> 621
 <212> DNA
 <213> Homo sapiens

<400> 3133
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 240
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 300
 gcaggcactg gggaaacatg tggcacctgg aagcttggag acgctagaaa ccgcagagcc
 360
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 420
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 480
 tttcagcgct gtttgtgtta cacctctttt agccccgccc ttcggcaggc cccgagttct
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 atcctacgtg atgatttcat g
 621

<210> 3134
 <211> 51
 <212> PRT

<213> Homo sapiens

<400> 3134

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Ala	Val	Arg	Gln	Val	Pro	Ser	Ser	Cys	Ala	Ala	Ser	Arg	Lys	Asn	Glu
		20					25					30			
Thr	Glu	Val	Lys	Ser	Glu	Glu	Gly	Pro	Gly	Trp	Thr	Ile	Leu	Arg	Asp
	35					40					45				
Asp	Phe	Met													
	50														

<210> 3135

<211> 3166

<212> DNA

<213> Homo sapiens

<400> 3135

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120
gaggaagcag agataaagac tcacattggc accaagcaca caggggaaga caggaagacc
180
cccagcgaat caaatagccc ctcttcatcc tccctctcag ctctgagtga ttcagccaac
240
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360
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Tyr Phe Phe Leu Phe Asn Thr Phe Val Gln Lys Gln Gly Ile Arg Ala				
	645	650	655	
Gly Asp Leu Leu Leu Arg His Ser Ala Leu Arg His Met Ile Ser Phe				
	660	665	670	
Leu Leu Gly Ala Ser Arg Gln Asn Asn Gln Ile Arg Arg Trp Ser Ser				
	675	680	685	
Ala Gln Ala Arg Glu Phe Gly Asn Leu His Asn Thr Val Ala Leu Leu				
	690	695	700	
Val Leu His Ser Asp Val Ser Ser Gln Arg Asn Val Ala Pro Gly Ile				
	705	710	715	720
Phe Lys Gln Arg Pro Ile Ser Ile Ala Pro Ser Ser Pro Leu Leu				
	725	730	735	
Pro Leu His Glu Glu Val Glu Ala Leu Leu Phe Met Ser Glu Gly Lys				
	740	745	750	
Pro Tyr Leu Leu Glu Val Met Phe Ala Leu Arg Glu Leu Thr Gly Ser				
	755	760	765	
Leu Leu Ala Leu Ile Glu Met Val Val Tyr Cys Cys Phe Cys Asn Glu				
	770	775	780	
His Phe Ser Phe Thr Met Leu His Phe Ile Lys Asn Gln Leu Glu Thr				
	785	790	795	800
Ala Pro Pro His Glu Leu Lys Asn Thr Phe Gln Leu Leu His Glu Ile				
	805	810	815	
Leu Val Ile Glu Asp Pro Ile Gln Ala Glu Arg Val Lys Phe Val Phe				
	820	825	830	
Glu Thr Glu Asn Gly Leu Leu Ala Leu Met His His Ser Asn His Val				
	835	840	845	
Asp Ser Ser Arg Cys Tyr Gln Cys Val Lys Phe Leu Val Thr Leu Ala				
	850	855	860	
Gln Lys Cys Pro Ala Ala Lys Glu Tyr Phe Lys Glu Asn Ser His His				
	865	870	875	880
Trp Ser Trp Ala Val Gln Trp Leu Gln Lys Lys Met Ser Glu His Tyr				

885										890				895			
Trp	Thr	Pro	Gln	Ser	Asn	Val	Ser	Asn	Glu	Thr	Ser	Thr	Gly	Lys	Thr		
900										905				910			
Phe	Gln	Arg	Thr	Ile	Ser	Ala	Gln	Asp	Ala	Leu	Ala	Tyr	Ala	Thr	Ala		
915										920				925			
Leu	Leu	Asn	Glu	Lys	Glu	Gln	Ser	Gly	Ser	Ser	Asn	Gly	Ser	Glu	Ser		
930										935				940			
Ser	Pro	Ala	Asn	Glu	Asn	Gly	Asp	Arg	His	Leu	Gln	Gln	Gly	Ser	Glu		
945										950				955			
Ser	Pro	Met	Met	Ile	Gly	Glu	Leu	Arg	Ser	Asp	Leu	Asp	Asp	Val	Asp		
965										970				975			
Pro																	

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<210> 3139
<211> 503
<212> DNA
<213> Homo sapiens
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<400> 3139
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60
tggccggaag gaaaggtgct ttggtacaac actgtcctga acaaaagctc caactggggg
120
acctccccgc tgctatggta cttctactca gccctgcccc ggggcctggg ctgcagcctg
180
ctcttcatcc ccttgggctt ggtagacaga aggacgcacg cgccgacggt gctggcactg
240
ggcttcatgg cactctactc cctcctgcc aacaaggagc tacgcttcat catctatgcc
300
ttccccatgc tcaacatcac ggctgccaga ggctgctcct acctgtgagt gctctttttg
360
tgacatgeat ttttatagtt tcattggaaa caggttcact gatttactgt tgggggggatg
420
tatgtgtgtg ttttaattttt gaaacagggc cttgctctgt cgcccagctg gagtggggct
480
tactgcaccc ctcaactcct agg
503
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<210> 3140
<211> 115
<212> PRT
<213> Homo sapiens
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<400> 3140
Xaa Ile Leu Cys Leu Gly Leu Thr Val Ala Val Asp Ser Tyr Phe Trp
  1             5             10             15
Arg Gln Leu Thr Trp Pro Glu Gly Lys Val Leu Trp Tyr Asn Thr Val
      20             25             30
Leu Asn Lys Ser Ser Asn Trp Gly Thr Ser Pro Leu Leu Trp Tyr Phe
      35             40             45
Tyr Ser Ala Leu Pro Arg Gly Leu Gly Cys Ser Leu Leu Phe Ile Pro
      50             55             60
Leu Gly Leu Val Asp Arg Arg Thr His Ala Pro Thr Val Leu Ala Leu

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65 70 75 80
Gly Phe Met Ala Leu Tyr Ser Leu Leu Pro His Lys Glu Leu Arg Phe
 85 90 95
Ile Ile Tyr Ala Phe Pro Met Leu Asn Ile Thr Ala Ala Arg Gly Cys
 100 105 110
Ser Tyr Leu
 115

<210> 3141
<211> 1815
<212> DNA
<213> Homo sapiens

<400> 3141
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caggttggcg tccccggccc accggccagg agaggcctgc gctgcacacg cgcagaccga
120
gcatccgct caagaggcga agagagcgcg cgctccccac gtcttgcgt cctggctgcc
180
gggcattcgt ctccagcgtg actctcgcca ggccggggct ggcgcgcca cgtctgaaga
240
gcgatgcccc gggagatcat caccctgcag ctgggcccagt gcggcaacca gattgggttc
300
gagttctgga aacagctgtg cgccgagcat ggtatcagcc ccgagggcat cgtggaggag
360
ttcgccaccg agggcactga ccgcaaggac gtctttttct accaggcaga cgatgagcac
420
tacatcccc gggccgtgct gctggacttg gaaccccggt tgatccactc catcctcaac
480
tccccctatg ccaagctcta caaccagag aacatctacc tgtcggaaca tggaggagga
540
gctggcaaca actgggcccag cggattctcc cagggtgaga aaattcatga ggacattttt
600
gacatcatag accgggaggc agatggtagt gacagtctag agggctttgt gctgtgtcac
660
tccattgctg gggggacagg ctctggactg ggttcctacc tcttagaacg gctgaatgac
720
aggatccta agaagctggt gcagacatac tcagtgtttc ccaaccagga cgagatgagc
780
gatgtggtgg tccagcctta caattcactc ctcacactca agaggctgac gcagaatgca
840
gactgtgtgg tgggtgctga caacacagcc ctgaaccgga ttgccacaga ccgcctgcac
900
atccagaacc catccttctc ccagatcaac cagctgggtg ctaccatcat gtcagccagc
960
accaccacc tgcgtaccc tggctacatg aacaatgacc tcatcggcct catcgccctg
1020
ctcattccca cccacggct ccacttctc atgaccggct acaccccgct cactacagac
1080
cagtcagtgg ccagcgtgag gaagaccacg gtcctggatg tcatgaggcg gctgtgtcag
1140
cccaagaacg tgatgggtgc cacaggccga gaccgccaga ccaaccactg ctacatcgcc
1200

atcctcaaca tcatccaggg agaggtggac cccacccagg tccacaagag cttgcagagg
1260
atccgggaac gcaagttggc caacttcate ccgtggggcc ccgccagcat ccaggtggcc
1320
ctgtcgagga agtctcccta cctgccctcg gccaccggg tcagcgggct catgatggcc
1380
aaccacacca gcatctctc gctcttcgag agaacctgtc gccagtatga caagctgcgt
1440
aagcgggagg ccttcctgga gcagttccgc aaggaggaca tggtcaagga caactttgat
1500
gagatggaca catccagga gattgtgcag cagctcatcg atgagtacca tgcggccaca
1560
cggccagact acatctcctg gggcaccag gagcagttag tccccagga cagggaccct
1620
catctgcctt actggttggc ccaagccctg cctgactgac caccctca gagcacagat
1680
cagggacctc acgcatctct ttctcatata catggactct ctgttggcct gcaaacacat
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1800
aaaaaaaaaa aaaaa
1815

<210> 3142
<211> 451
<212> PRT
<213> Homo sapiens

<400> 3142
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1 5 10 15
Ile Gly Phe Glu Phe Trp Lys Gln Leu Cys Ala Glu His Gly Ile Ser
20 25 30
Pro Glu Gly Ile Val Glu Glu Phe Ala Thr Glu Gly Thr Asp Arg Lys
35 40 45
Asp Val Phe Phe Tyr Gln Ala Asp Asp Glu His Tyr Ile Pro Arg Ala
50 55 60
Val Leu Leu Asp Leu Glu Pro Arg Val Ile His Ser Ile Leu Asn Ser
65 70 75 80
Pro Tyr Ala Lys Leu Tyr Asn Pro Glu Asn Ile Tyr Leu Ser Glu His
85 90 95
Gly Gly Gly Ala Gly Asn Asn Trp Ala Ser Gly Phe Ser Gln Gly Glu
100 105 110
Lys Ile His Glu Asp Ile Phe Asp Ile Ile Asp Arg Glu Ala Asp Gly
115 120 125
Ser Asp Ser Leu Glu Gly Phe Val Leu Cys His Ser Ile Ala Gly Gly
130 135 140
Thr Gly Ser Gly Leu Gly Ser Tyr Leu Leu Glu Arg Leu Asn Asp Arg
145 150 155 160
Tyr Pro Lys Lys Leu Val Gln Thr Tyr Ser Val Phe Pro Asn Gln Asp
165 170 175
Glu Met Ser Asp Val Val Val Gln Pro Tyr Asn Ser Leu Leu Thr Leu
180 185 190
Lys Arg Leu Thr Gln Asn Ala Asp Cys Val Val Val Leu Asp Asn Thr

195	200	205
Ala Leu Asn Arg Ile Ala Thr Asp Arg Leu His Ile Gln Asn Pro Ser		
210	215	220
Phe Ser Gln Ile Asn Gln Leu Val Ser Thr Ile Met Ser Ala Ser Thr		
225	230	235
Thr Thr Leu Arg Tyr Pro Gly Tyr Met Asn Asn Asp Leu Ile Gly Leu		
245	250	255
Ile Ala Ser Leu Ile Pro Thr Pro Arg Leu His Phe Leu Met Thr Gly		
260	265	270
Tyr Thr Pro Leu Thr Thr Asp Gln Ser Val Ala Ser Val Arg Lys Thr		
275	280	285
Thr Val Leu Asp Val Met Arg Arg Leu Leu Gln Pro Lys Asn Val Met		
290	295	300
Val Ser Thr Gly Arg Asp Arg Gln Thr Asn His Cys Tyr Ile Ala Ile		
305	310	315
Leu Asn Ile Ile Gln Gly Glu Val Asp Pro Thr Gln Val His Lys Ser		
325	330	335
Leu Gln Arg Ile Arg Glu Arg Lys Leu Ala Asn Phe Ile Pro Trp Gly		
340	345	350
Pro Ala Ser Ile Gln Val Ala Leu Ser Arg Lys Ser Pro Tyr Leu Pro		
355	360	365
Ser Ala His Arg Val Ser Gly Leu Met Met Ala Asn His Thr Ser Ile		
370	375	380
Ser Ser Leu Phe Glu Arg Thr Cys Arg Gln Tyr Asp Lys Leu Arg Lys		
385	390	395
Arg Glu Ala Phe Leu Glu Gln Phe Arg Lys Glu Asp Met Phe Lys Asp		
405	410	415
Asn Phe Asp Glu Met Asp Thr Ser Arg Glu Ile Val Gln Gln Leu Ile		
420	425	430
Asp Glu Tyr His Ala Ala Thr Arg Pro Asp Tyr Ile Ser Trp Gly Thr		
435	440	445
Gln Glu Gln		
450		

<210> 3143
 <211> 356
 <212> DNA
 <213> Homo sapiens

<400> 3143
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 ggagacagac cctctgcggt ggagctctggg agtggtgtgg ttgctgcttg ggctgggctg
 120
 caggcctgag ctctctggctg gtgggaaggg gaggctgctg gtccacagtg tgggggtgct
 180
 tcacgggttaa ccaagccatc ccccatgctg ggcgtgaggc actagcggaa ttgagagcct
 240
 cagaaaccca ggtgctgctg tgtgaggctg tcgcagccac gaagatgacc atgactgcaa
 300
 gggctgtgag gggccccctg agcgtccagc agcactaaca gataggaacc acgcgt
 356

<210> 3144

<211> 81
<212> PRT
<213> Homo sapiens

<400> 3144
Met Val Ile Phe Val Ala Ala Thr Ala Ser His Ser Ser Thr Trp Val
1 5 10 15
Ser Glu Ala Leu Asn Ser Ala Ser Ala Ser Arg Pro Ala Trp Gly Met
20 25 30
Ala Trp Leu Thr Val Lys His Pro His Thr Val Asp Gln Gln Pro Pro
35 40 45
Leu Pro Thr Ser Gln Glu Leu Arg Pro Ala Ala Gln Pro Lys Gln Gln
50 55 60
Pro His His Ser Gln Thr Pro Pro Gln Arg Val Cys Leu Arg Ala Pro
65 70 75 80
Ser

<210> 3145
<211> 436
<212> DNA
<213> Homo sapiens

<400> 3145
taaaagcccg gagccgctca gctatggaga agctgcgctc caaaactcca ctcggcctcc
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atccgaagag cccgattacc agctgctcgg gagggccaag caggaccggg ggaggccaaa
120
ctccgaggag cccgctccac ctgccctcag gaggggtgtt aaaacggagg ttgccaccgt
180
ttacgcacct gccctcagtg ccagggcccc cgagcctggt ttgtcagact ctgcagccgc
240
cagccagtgg tcactctgcc cggcagatga cgagcggagg agagccacac atctcaacgg
300
gctccaggcg cctcggaaa ctgccctggc ctgctcacc ccatgcaggt gcctgtcccc
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cgaatgtagt gagcagccgt cgcagactca caccgcccg gggctgggga accagctaag
420
tcccacagcg gttgct
436

<210> 3146
<211> 131
<212> PRT
<213> Homo sapiens

<400> 3146
Met Glu Lys Leu Arg Ser Lys Thr Pro Leu Gly Leu His Pro Lys Ser
1 5 10 15
Pro Ile Thr Ser Cys Ser Gly Gly Pro Ser Arg Thr Gly Gly Gly Gln
20 25 30
Thr Pro Arg Ser Pro Leu His Leu Pro Ser Gly Gly Cys Leu Lys Arg
35 40 45
Arg Leu Pro Pro Phe Thr His Leu Pro Ser Val Pro Gly Pro Pro Ser

50 55 60
Leu Val Cys Gln Thr Leu Gln Pro Pro Ala Ser Gly His Ser Ala Arg
65 70 75 80
Gln Met Thr Ser Gly Gly Glu Pro His Ile Ser Thr Gly Ser Arg Arg
85 90 95
Pro Arg Lys Leu Pro Trp Pro Ala His Pro Arg Cys Ser Ala Cys Pro
100 105 110
Pro Asn Val Val Ser Ser Arg Arg Arg Leu Thr Pro Arg Arg Gly Trp
115 120 125
Gly Thr Ser
130

<210> 3147
<211> 3106
<212> DNA
<213> Homo sapiens

<400> 3147
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120
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180
cgcaccgaca ggtggctggg cattgaccgc aagggtttaca acatcaccaa atggtccatc
240
cagcaccggy gggggccagc ggtcatcggg cactacgctg gagaagatgc aacggatgcc
300
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360
ggtgaactgg ccccgaggga gccagccag gaccacggca agaactcaaa gatcactgag
420
gacttccggg ccctgaggaa gacggctgag gacatgaacc tgttcaagac caaccacgtg
480
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540
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600
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660
aagtgggaacc acctgttcca caaatcgtc attggccact taaaggggtc ctctgccaac
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780
gatgtgaaca tgctgcacgt gtttgttctg ggcgaatggc agcccatcga gtacggcaag
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900
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960
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1020
cctttctacg gcattcctggg agccctcctt ttcctcaact tcatcagggt cctggagagc
1080

cactggtttg tgtgggtcac acagatgaat cacatcgtca tggagattga ccaggaggcc
1140
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1200
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1260
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1800
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1860
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1920
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2040
gccagcccaa accttgggct ctggaagagt cctccacccc atcactagag tgctctgacc
2100
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2160
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2220
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2280
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2340
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2400
gagctgggag gtctcgtccc agccctcccc atctcggggc tgctgtgtgg acggcgctgc
2460
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2520
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2580
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2640
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2700

tgagaagagg aggaggtggg ggctggaggt gctggtagct gaggggacgg gcaagtgaga
2760
ggggaggagg ggaagtcctg ggaggatcct gagctgctgt tgcagtctaa ccactaatc
2820
agttcttaga ttcaggggaa gggcaggcac caacaactca gaatgggggc tttcggggag
2880
ggcgccctagt ccccccagct ctaagcagcc aggagggacc tgcacttaag catctgggtt
2940
gccatggcaa tggcatgccc ccagctact gtatgcccc gacccccgca gaggcagaat
3000
gaacccatag ggagctgac gtaatgttta tcatgttact tccccacccc tacatttttt
3060
gaaataaaat aaggaatttt attctcaaaa aaaaaaaaaa aaaaaa
3106

<210> 3148

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3148

Met	Gly	Lys	Gly	Gly	Asn	Gln	Gly	Glu	Gly	Ala	Ala	Glu	Arg	Glu	Val
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Ser	Val	Pro	Thr	Phe	Ser	Trp	Glu	Glu	Ile	Gln	Lys	His	Asn	Leu	Arg
			20				25					30			
Thr	Asp	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Thr	Lys
			35				40					45			
Trp	Ser	Ile	Gln	His	Pro	Gly	Gly	Gln	Arg	Val	Ile	Gly	His	Tyr	Ala
			50				55				60				
Gly	Glu	Asp	Ala	Thr	Asp	Ala	Phe	Arg	Ala	Phe	His	Pro	Asp	Leu	Glu
65							70				75			80	
Phe	Val	Gly	Lys	Phe	Leu	Lys	Pro	Leu	Leu	Ile	Gly	Glu	Leu	Ala	Pro
			85							90				95	
Glu	Glu	Pro	Ser	Gln	Asp	His	Gly	Lys	Asn	Ser	Lys	Ile	Thr	Glu	Asp
			100							105				110	
Phe	Arg	Ala	Leu	Arg	Lys	Thr	Ala	Glu	Asp	Met	Asn	Leu	Phe	Lys	Thr
			115							120				125	
Asn	His	Val	Phe	Phe	Leu	Leu	Leu	Leu	Ala	His	Ile	Ile	Ala	Leu	Glu
			130							135				140	
Ser	Ile	Ala	Trp	Phe	Thr	Val	Phe	Tyr	Phe	Gly	Asn	Gly	Trp	Ile	Pro
145										150				155	
Thr	Leu	Ile	Thr	Ala	Phe	Val	Leu	Ala	Thr	Ser	Gln	Ala	Gln	Ala	Gly
										165				170	
Trp	Leu	Gln	His	Asp	Tyr	Gly	His	Leu	Ser	Val	Tyr	Arg	Lys	Pro	Lys
			180							185				190	
Trp	Asn	His	Leu	Val	His	Lys	Phe	Val	Ile	Gly	His	Leu	Lys	Gly	Ala
			195							200				205	
Ser	Ala	Asn	Trp	Trp	Asn	His	Arg	His	Phe	Gln	His	His	Ala	Lys	Pro
			210							215				220	
Asn	Ile	Phe	His	Lys	Asp	Pro	Asp	Val	Asn	Met	Leu	His	Val	Phe	Val
225										230				235	
Leu	Gly	Glu	Trp	Gln	Pro	Ile	Glu	Tyr	Gly	Lys	Lys	Lys	Leu	Lys	Tyr
										245				250	
Leu	Pro	Tyr	Asn	His	Gln	His	Glu	Tyr	Phe	Phe	Leu	Ile	Gly	Pro	Pro

2365

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      260      265      270
Leu Leu Ile Pro Met Tyr Phe Gln Tyr Gln Ile Ile Met Thr Met Ile
      275      280      285
Val His Lys Asn Trp Val Asp Leu Ala Trp Ala Val Ser Tyr Tyr Ile
      290      295      300
Arg Phe Phe Ile Thr Tyr Ile Pro Phe Tyr Gly Ile Leu Gly Ala Leu
      305      310      315      320
Leu Phe Leu Asn Phe Ile Arg Phe Leu Glu Ser His Trp Phe Val Trp
      325      330      335
Val Thr Gln Met Asn His Ile Val Met Glu Ile Asp Gln Glu Ala Tyr
      340      345      350
Arg Asp Trp Phe Ser Ser Gln Leu Thr Ala Thr Cys Asn Val Glu Gln
      355      360      365
Ser Phe Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
      370      375      380
His His Leu Phe Pro Thr Met Pro Arg His Asn Leu His Lys Ile Ala
      385      390      395      400
Pro Leu Val Lys Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Glu
      405      410      415
Lys Pro Leu Leu Arg Ala Leu Leu Asp Ile Ile Arg Ser Leu Lys Lys
      420      425      430
Ser Gly Lys Leu Trp Leu Asp Ala Tyr Leu His Lys
      435      440

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<210> 3149
 <211> 1006
 <212> DNA
 <213> Homo sapiens

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<400> 3149
ncttcgccgg cgtcccgacc cgaggccgga cccgaggcca gtcccgccgc tgccaccgaa
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gccagtgcgg ggcctgagag ggacgcgcgc cccggggccc ccgccgcggg caccatgggc
120
gctgccact ccgcgtctga ggaggtgcgg gagctcgagg gcaagaccgg cttctcatcg
180
gatcagatcg agcagctcca tcggagattt aagcagctga gtggagatca gcctaccatt
240
cgcaaggaga acttcaacaa tgtcccgac ctggagctca acccatccg atccaaaatt
300
gttcgtgcct tcttcgacaa caggaacctg cgcaaggac ccagtggcct ggctgatgag
360
atcaatttcg aggacttcct gaccatcatg tcctacttcc ggcccatcga caccaccatg
420
gacgaggaac aggtggagct gtcccggaag gagaagctga gatttctgtt ccacatgtac
480
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720

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1006

<210> 3150
<211> 201
<212> PRT
<213> Homo sapiens

<400> 3150
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35 40 45
Val Arg Glu Leu Glu Gly Lys Thr Gly Phe Ser Ser Asp Gln Ile Glu
50 55 60
Gln Leu His Arg Arg Phe Lys Gln Leu Ser Gly Asp Gln Pro Thr Ile
65 70 75 80
Arg Lys Glu Asn Phe Asn Asn Val Pro Asp Leu Glu Leu Asn Pro Ile
85 90 95
Arg Ser Lys Ile Val Arg Ala Phe Phe Asp Asn Arg Asn Leu Arg Lys
100 105 110
Gly Pro Ser Gly Leu Ala Asp Glu Ile Asn Phe Glu Asp Phe Leu Thr
115 120 125
Ile Met Ser Tyr Phe Arg Pro Ile Asp Thr Thr Met Asp Glu Glu Gln
130 135 140
Val Glu Leu Ser Arg Lys Glu Lys Leu Arg Phe Leu Phe His Met Tyr
145 150 155 160
Asp Ser Asp Ser Asp Gly Arg Ile Thr Leu Glu Glu Tyr Arg Asn Val
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Lys Trp Ser Arg Ser Cys Cys Arg Glu Thr Leu Thr Ser Arg Arg Ser
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Pro Leu Ala Pro Ser Pro Thr Gly Pro
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<210> 3151
<211> 2079
<212> DNA
<213> Homo sapiens

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240
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2079

<210> 3152
<211> 214
<212> PRT
<213> Homo sapiens

<400> 3152
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35 40 45
Ile Phe Ser Phe Ile Ser Lys Asp Val Val Ser Lys Leu Arg Ile Met
50 55 60
Glu Arg Leu Arg Gly Gly Pro Gln Ser Glu His Tyr Arg Ser Leu Gln
65 70 75 80
Ala Met Val Ala His Glu Leu Ser Asn Arg Leu Val Asp Leu Glu Gly
85 90 95
Arg Ser His His Pro Glu Ser Gly Cys Arg Thr Val Leu Arg Leu His
100 105 110
Arg Ala Leu His Trp Leu Gln Leu Phe Leu Glu Gly Leu Arg Thr Ser
115 120 125
Pro Glu Asp Ala Arg Thr Ser Ala Leu Cys Ala Asp Ser Tyr Asn Ala
130 135 140
Ser Leu Ala Ala Tyr His Pro Trp Val Val Arg Arg Ala Val Thr Val
145 150 155 160
Ala Phe Cys Thr Leu Pro Thr Arg Glu Val Phe Leu Glu Ala Met Asn
165 170 175
Val Gly Pro Pro Glu Gln Ala Val Gln Met Leu Gly Glu Ala Leu Pro
180 185 190
Phe Ile Gln Arg Val Tyr Asn Val Ser Gln Lys Leu Tyr Ala Glu His
195 200 205
Ser Leu Leu Asp Leu Pro
210

<210> 3153
<211> 1498
<212> DNA
<213> Homo sapiens

<400> 3153

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720
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<210> 3154

<211> 65

<212> PRT

<213> Homo sapiens

<400> 3154

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Ser Gly His Arg Trp Gly Ile Thr Leu Pro Thr Arg Asp Ser Arg His
      35           40           45
Gly Leu Leu Gly Leu Gln Ala Pro Trp Gly Ser Arg Gly Lys Pro Gln
      50           55           60
Gly
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<210> 3155

<211> 551

<212> DNA

<213> Homo sapiens

<400> 3155

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420
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<210> 3156

<211> 178

<212> PRT

<213> Homo sapiens

<400> 3156

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      20           25           30
Thr Ala Ser Thr Asn Cys Asp Ser Ser Ser Glu Gly Leu Glu Lys Asp
      35           40           45
Thr Ala Thr Gln Arg Ser Asp Gln Thr Cys Leu Glu Pro Ser Cys Ser

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50 55 60
Cys Ser Ser Glu Asn Gln Glu Cys Gln Thr Ala Ala Ser Pro Gly Glu
65 70 75 80
Ile Leu Glu Ile Leu Lys Lys Gly Lys Ala Phe Val Leu Asp Ile Asp
85 90 95
Leu Asp Phe Phe Ser Val Lys Asn Pro Phe Lys Lys Met Phe Thr Gln
100 105 110
Glu Glu Tyr Lys Ile Leu Gln Glu Leu Tyr Gln Phe Lys Lys Pro Gly
115 120 125
Thr Asn Leu Thr Glu Glu Asp Leu Val Asp Ile Val Asp Thr Arg Ile
130 135 140
His Gln Leu Glu Asp Leu Glu Ala Thr Phe Ala Asp Leu Cys Asp Gly
145 150 155 160
Asp Asp Glu Glu Thr Val Gln Gly Trp Ala Ser Asn Pro Gly Met Glu
165 170 175
Ser Leu

<210> 3157
<211> 903
<212> DNA
<213> Homo sapiens

<400> 3157
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<210> 3158
<211> 92
<212> PRT
<213> Homo sapiens

<400> 3158
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Val Leu Ser Glu Lys Met Glu Pro Ser Ser Phe Gln Pro Leu Pro Glu
20 25 30
Thr Glu Pro Pro Thr Pro Glu Pro Gly Pro Lys Thr Pro Pro Arg Thr
35 40 45
Met Gln Glu Ser Pro Leu Gly Leu Gln Val Lys Glu Glu Ser Glu Val
50 55 60
Thr Glu Asp Ser Asp Phe Leu Glu Ser Gly Pro Leu Ala Ala Thr Gln
65 70 75 80
Glu Ser Val Pro Thr Leu Leu Pro Glu Glu Ala Gln
85 90

<210> 3159
<211> 2408
<212> DNA
<213> Homo sapiens

<400> 3159
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2400

tgccatta
2408

<210> 3160
<211> 431
<212> PRT
<213> Homo sapiens

<400> 3160
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Glu Lys Leu Leu Glu Lys Tyr Met Asp Glu Asp Gly Glu Trp Trp Ile
35 40 45
Ala Lys Gln Arg Gly Lys Arg Ala Ile Thr Asp Asn Asp Met Gln Ser
50 55 60
Ile Leu Asp Leu His Asn Lys Leu Arg Ser Gln Val Tyr Pro Thr Ala
65 70 75 80
Ser Asn Met Glu Tyr Met Thr Trp Asp Val Glu Leu Glu Arg Ser Ala
85 90 95
Glu Ser Trp Ala Glu Ser Cys Leu Trp Glu His Gly Pro Ala Ser Leu
100 105 110
Leu Pro Ser Ile Gly Gln Asn Leu Gly Ala His Trp Gly Arg Tyr Arg
115 120 125
Pro Pro Thr Phe His Val Gln Ser Trp Tyr Asp Glu Val Lys Asp Phe
130 135 140
Ser Tyr Pro Tyr Glu His Glu Cys Asn Pro Tyr Cys Pro Phe Arg Cys
145 150 155 160
Ser Gly Pro Val Cys Thr His Tyr Thr Gln Val Val Trp Ala Thr Ser
165 170 175
Asn Arg Ile Gly Cys Ala Ile Asn Leu Cys His Asn Met Asn Ile Trp
180 185 190
Gly Gln Ile Trp Pro Lys Ala Val Tyr Leu Val Cys Asn Tyr Ser Pro
195 200 205
Lys Gly Asn Trp Trp Gly His Ala Pro Tyr Lys His Gly Arg Pro Cys
210 215 220
Ser Ala Cys Pro Pro Ser Phe Gly Gly Gly Cys Arg Glu Asn Leu Cys
225 230 235 240
Tyr Lys Glu Gly Ser Asp Arg Tyr Tyr Pro Pro Arg Glu Glu Glu Thr
245 250 255
Asn Glu Ile Glu Arg Gln Gln Ser Gln Val His Asp Thr His Val Arg
260 265 270
Thr Arg Ser Asp Asp Ser Ser Arg Asn Glu Val Ile Ser Ala Gln Gln
275 280 285
Met Ser Gln Ile Val Ser Cys Glu Val Arg Leu Arg Asp Gln Cys Lys
290 295 300
Gly Thr Thr Cys Asn Arg Tyr Glu Cys Pro Ala Gly Cys Leu Asp Ser
305 310 315 320
Lys Ala Lys Val Ile Gly Ser Val His Tyr Glu Met Gln Ser Ser Ile
325 330 335
Cys Arg Ala Ala Ile His Tyr Gly Ile Ile Asp Asn Asp Gly Gly Trp
340 345 350
Val Asp Ile Thr Arg Gln Gly Arg Lys His Tyr Phe Ile Lys Ser Asn

355	360	365
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370	375	380
Thr Val Ser Lys Val Thr	Val Gln Ala Val Thr Cys Glu Thr Thr Val	
385	390	395
Asp Ser Ser Val His Phe	Ile Ser Leu Leu His Ile Ala Gln Glu Tyr	400
405	410	415
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<210> 3161
 <211> 1197
 <212> DNA
 <213> Homo sapiens

<400> 3161
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 1080
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 1140

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1197

<210> 3162

<211> 386

<212> PRT

<213> Homo sapiens

<400> 3162

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Glu	Met	Glu	Thr	Ser	Val	Pro	Pro	Gly	Phe	Lys	Val	Phe	Gly	Ala	Pro
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Asn	Val	Val	Glu	Asp	Glu	Ile	Asp	Gln	Tyr	Leu	Ser	Lys	Gln	Asp	Gly
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Lys	Ile	Tyr	Arg	Ser	Arg	Asp	Pro	Gln	Leu	Cys	Arg	His	Gly	Pro	Leu
			100					105					110		
Gly	Lys	Cys	Val	His	Cys	Val	Pro	Leu	Glu	Pro	Phe	Asp	Glu	Asp	Tyr
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Leu	Asn	His	Leu	Glu	Pro	Pro	Val	Lys	His	Met	Ser	Phe	His	Ala	Tyr
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Glu	Asn	Ile	Ser	Cys	Lys	Ile	Lys	Ser	Gly	Cys	Glu	Gly	His	Leu	Pro
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Trp	Pro	Asn	Gly	Ile	Cys	Thr	Lys	Cys	Gln	Pro	Ser	Ala	Ile	Thr	Leu
			180					185					190		
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		195				200						205			
Thr	Val	Ala	Asp	Arg	Phe	Leu	Asp	Phe	Trp	Arg	Lys	Thr	Gly	Asn	Gln
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His	Phe	Gly	Tyr	Leu	Tyr	Gly	Arg	Tyr	Thr	Glu	His	Lys	Asp	Ile	Pro
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Leu	Gly	Ile	Arg	Ala	Glu	Val	Ala	Ala	Ile	Tyr	Glu	Pro	Pro	Gln	Ile
			245						250					255	
Gly	Thr	Gln	Asn	Ser	Leu	Glu	Leu	Leu	Glu	Asp	Pro	Lys	Ala	Glu	Val
		260						265					270		
Val	Asp	Glu	Ile	Ala	Ala	Lys	Leu	Gly	Leu	Arg	Lys	Val	Gly	Trp	Ile
		275					280					285			
Phe	Thr	Asp	Leu	Val	Ser	Glu	Asp	Thr	Arg	Lys	Gly	Thr	Val	Arg	Tyr
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Ser	Arg	Asn	Lys	Asp	Thr	Tyr	Phe	Leu	Ser	Ser	Glu	Glu	Cys	Ile	Thr
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Ala	Gly	Asp	Phe	Gln	Asn	Lys	His	Pro	Asn	Met	Cys	Arg	Leu	Ser	Pro
			325					330					335		
Asp	Gly	His	Phe	Gly	Ser	Lys	Phe	Val	Thr	Ala	Val	Ala	Thr	Gly	Gly
		340					345					350			
Pro	Asp	Asn	Gln	Val	His	Phe	Glu	Gly	Tyr	Gln	Val	Ser	Asn	Gln	Cys

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Val Cys
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<210> 3163
<211> 1075
<212> DNA
<213> Homo sapiens

<400> 3163
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480
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<210> 3164
<211> 94
<212> PRT
<213> Homo sapiens

<400> 3164
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 35 40 45
 Ser Ser Ala Ala Xaa Ala Ser Ala Ser Thr Gly Pro Trp His Ser Gly
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 Cys Gly Ser Ser Cys Gly Ser Cys Cys Cys Trp Gly Ser Pro Ser Ala
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 Ser Val Gly Val Gly Ala Gly Ala Ile Arg Ser Arg Thr Val
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<210> 3165
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 <212> DNA
 <213> Homo sapiens

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 1020

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2280
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2413

<210> 3166

<211> 717

<212> PRT

<213> Homo sapiens

<400> 3166
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Ser Leu Pro Leu Ser Ala His Gly Ile Val Val Ala Trp Leu Ser Arg
35 40 45
Ala Glu Trp Asp Gln Val Thr Val Tyr Leu Phe Cys Asp Asp His Lys
50 55 60
Leu Gln Arg Tyr Ala Leu Asn Arg Ile Thr Val Trp Arg Ser Arg Ser
65 70 75 80
Gly Asn Glu Leu Pro Leu Ala Val Ala Ser Thr Ala Asp Leu Ile Arg
85 90 95
Cys Lys Leu Leu Asp Val Thr Gly Gly Leu Gly Thr Asp Glu Leu Arg
100 105 110
Leu Leu Tyr Gly Met Ala Leu Val Arg Phe Val Asn Leu Ile Ser Glu
115 120 125
Arg Lys Thr Lys Phe Ala Lys Val Pro Leu Lys Cys Leu Ala Gln Glu
130 135 140
Val Asn Ile Pro Asp Trp Ile Val Asp Leu Arg His Glu Leu Thr His
145 150 155 160
Lys Lys Met Pro His Ile Asn Asp Cys Arg Arg Gly Cys Tyr Phe Val
165 170 175
Leu Asp Trp Leu Gln Lys Thr Tyr Trp Cys Arg Gln Leu Glu Asn Ser
180 185 190
Leu Arg Glu Thr Trp Glu Leu Glu Glu Phe Arg Glu Gly Ile Glu Glu
195 200 205
Glu Asp Gln Glu Glu Asp Lys Asn Ile Val Val Asp Asp Ile Thr Glu
210 215 220
Gln Lys Pro Glu Pro Gln Asp Asp Gly Lys Ser Thr Glu Ser Asp Val
225 230 235 240
Lys Ala Asp Gly Asp Ser Lys Gly Ser Glu Glu Val Asp Ser His Cys
245 250 255
Lys Lys Ala Leu Ser His Lys Glu Leu Tyr Glu Arg Ala Arg Glu Leu
260 265 270
Leu Val Ser Tyr Glu Glu Glu Gln Phe Thr Val Leu Glu Lys Phe Arg
275 280 285
Tyr Leu Pro Lys Ala Ile Lys Ala Trp Asn Asn Pro Ser Pro Arg Val
290 295 300
Glu Cys Val Leu Ala Glu Leu Lys Gly Val Thr Cys Glu Asn Arg Glu
305 310 315 320
Ala Val Leu Asp Ala Phe Leu Asp Asp Gly Phe Leu Val Pro Thr Phe
325 330 335
Glu Gln Leu Ala Ala Leu Gln Ile Glu Tyr Glu Glu Asn Val Asp Leu
340 345 350
Asn Asp Val Leu Val Pro Lys Pro Phe Ser Gln Phe Trp Gln Pro Leu
355 360 365
Leu Arg Gly Leu His Ser Gln Asn Phe Thr Gln Ala Leu Leu Glu Arg
370 375 380
Met Leu Ser Glu Leu Pro Ala Leu Gly Ile Ser Gly Ile Arg Pro Thr
385 390 395 400
Tyr Ile Leu Arg Trp Thr Val Glu Leu Ile Val Ala Asn Thr Lys Thr
405 410 415
Gly Arg Asn Ala Arg Arg Phe Ser Ala Gly Gln Trp Glu Ala Arg Arg

420 425 430
 Gly Trp Arg Leu Phe Asn Cys Ser Ala Ser Leu Asp Trp Pro Arg Met
 435 440 445
 Val Glu Ser Cys Leu Gly Ser Pro Cys Trp Ala Ser Pro Gln Leu Leu
 450 455 460
 Arg Ile Ile Phe Lys Ala Met Gly Gln Gly Leu Pro Asp Glu Glu Gln
 465 470 475 480
 Glu Lys Leu Leu Arg Ile Cys Ser Ile Tyr Thr Gln Ser Gly Glu Asn
 485 490 495
 Ser Leu Val Gln Glu Gly Ser Glu Ala Ser Pro Ile Gly Lys Ser Pro
 500 505 510
 Tyr Thr Leu Asp Ser Leu Tyr Trp Ser Val Lys Pro Ala Ser Ser Ser
 515 520 525
 Phe Gly Ser Glu Ala Lys Ala Gln Gln Gln Glu Glu Gln Gly Ser Val
 530 535 540
 Asn Asp Val Lys Glu Glu Glu Lys Glu Glu Lys Glu Val Leu Pro Asp
 545 550 555 560
 Gln Val Glu Glu Glu Glu Asn Asp Asp Gln Glu Glu Glu Glu
 565 570 575
 Asp Glu Asp Asp Glu Asp Asp Glu Glu Asp Arg Met Glu Val Gly
 580 585 590
 Pro Phe Ser Thr Gly Gln Glu Ser Pro Thr Ala Glu Asn Ala Arg Leu
 595 600 605
 Leu Ala Gln Lys Arg Gly Ala Leu Gln Gly Ser Ala Trp Gln Val Ser
 610 615 620
 Ser Glu Asp Val Arg Trp Asp Thr Phe Pro Leu Gly Arg Met Pro Gly
 625 630 635 640
 Gln Thr Glu Asp Pro Ala Glu Leu Met Leu Glu Asn Tyr Asp Thr Met
 645 650 655
 Tyr Leu Leu Asp Gln Pro Val Leu Glu Gln Arg Leu Glu Pro Ser Thr
 660 665 670
 Cys Lys Thr Asp Thr Leu Gly Leu Ser Cys Gly Val Gly Ser Gly Asn
 675 680 685
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<210> 3167
 <211> 2730
 <212> DNA
 <213> Homo sapiens

<400> 3167
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 180
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 300

aagggtgtcc ttatcagcag atcaaaggat aaacttgacc aggtttccag tgaaataaaa
360
gaaaaattca aagtggagac aagaaccatt gctgttgact ttgcatcaga agatatttat
420
gataaaaatta aaacaggctt ggctggctct gaaatcggca tcttagtgaa caacgtggga
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<210> 3168

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3168

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 Ala Leu Arg Val Trp Gly Val Gly Asn Glu Ala Gly Val Gly Pro Gly
 35 40 45
 Leu Gly Glu Trp Ala Val Val Thr Gly Ser Thr Asp Gly Ile Gly Lys
 50 55 60
 Ser Tyr Ala Glu Glu Leu Ala Lys His Gly Met Lys Val Val Leu Ile
 65 70 75 80
 Ser Arg Ser Lys Asp Lys Leu Asp Gln Val Ser Ser Glu Ile Lys Glu
 85 90 95
 Lys Phe Lys Val Glu Thr Arg Thr Ile Ala Val Asp Phe Ala Ser Glu
 100 105 110
 Asp Ile Tyr Asp Lys Ile Lys Thr Gly Leu Ala Gly Leu Glu Ile Gly
 115 120 125
 Ile Leu Val Asn Asn Val Gly Met Ser Tyr Glu Tyr Pro Glu Tyr Phe
 130 135 140
 Leu Asp Val Pro Asp Leu Asp Asn Val Ile Lys Lys Met Ile Asn Ile

145 150 155 160
 Asn Ile Leu Ser Val Cys Lys Met Thr Gln Leu Val Leu Pro Gly Met
 165 170 175
 Val Glu Arg Ser Lys Gly Ala Ile Leu Asn Ile Ser Ser Gly Ser Gly
 180 185 190
 Met Leu Pro Val Pro Leu Leu Thr Ile Tyr Ser Ala Thr Lys Thr Phe
 195 200 205
 Val Asp Phe Phe Ser Gln Cys Leu His Glu Glu Tyr Arg Ser Lys Gly
 210 215 220
 Val Phe Val Gln Ser Val Leu Pro Tyr Phe Val Ala Thr Lys Leu Ala
 225 230 235 240
 Lys Ile Arg Lys Pro Thr Leu Asp Lys Pro Ser Pro Glu Thr Phe Val
 245 250 255
 Lys Ser Ala Ile Lys Thr Val Gly Leu Gln Ser Arg Thr Asn Gly Tyr
 260 265 270
 Leu Ile His Ala Leu Met Gly Ser Ile Ile Ser Asn Leu Pro Ser Trp
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<210> 3169
 <211> 5945
 <212> DNA
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 780

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840
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900
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1020
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<211> 412
<212> PRT
<213> Homo sapiens

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35 40 45
Pro Glu Gln Gln Met Ile Ala Asp Ile His Cys Met Ile Ala Ala Gly
50 55 60
Gln Asp Leu Asp Trp Ile Asp Ala Gln Gly Ala Thr Leu Leu His Ile
65 70 75 80
Ala Gly Ala Asn Gly Tyr Leu Arg Ala Ala Glu Leu Leu Leu Asp His
85 90 95
Gly Val Arg Val Asp Val Lys Asp Trp Asp Gly Trp Glu Pro Leu His
100 105 110
Ala Ala Ala Phe Trp Gly Gln Met Gln Met Ala Glu Leu Leu Val Ser
115 120 125
His Gly Ala Ser Leu Ser Ala Arg Thr Ser Met Asp Glu Met Pro Ile
130 135 140
Asp Leu Cys Glu Glu Glu Glu Phe Lys Val Leu Leu Leu Glu Leu Lys
145 150 155 160
His Lys His Asp Val Ile Met Lys Ser Gln Leu Arg His Lys Ser Ser
165 170 175
Leu Ser Arg Arg Thr Ser Ser Ala Gly Ser Arg Gly Lys Val Val Arg
180 185 190
Arg Ala Ser Leu Ser Asp Arg Thr Asn Leu Tyr Arg Lys Glu Tyr Glu
195 200 205
Gly Glu Ala Ile Leu Trp Gln Arg Ser Ala Ala Glu Asp Gln Arg Thr
210 215 220
Ser Thr Tyr Asn Gly Asp Ile Arg Glu Thr Arg Thr Asp Gln Glu Asn
225 230 235 240
Lys Asp Pro Asn Pro Arg Leu Glu Lys Pro Val Leu Leu Ser Glu Phe
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Pro Thr Lys Ile Pro Arg Gly Glu Leu Asp Met Pro Val Glu Asn Gly
260 265 270
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Pro Gly Val Ala Asp Ala Thr Pro Pro Trp Ser Ser Tyr Lys Glu Gln		
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Ser Pro Gln Thr Leu Leu Glu Leu Lys Arg Gln Arg Ala Ala Ala Lys		
325	330	335
Leu Leu Ser His Pro Phe Leu Ser Thr His Leu Gly Ser Ser Met Ala		
340	345	350
Arg Thr Gly Glu Ser Ser Ser Glu Gly Lys Ala Xaa Leu Ile Gly Gly		
355	360	365
Arg Thr Ser Pro Tyr Ser Ser Asn Gly Thr Ser Val Tyr Tyr Thr Val		
370	375	380
Thr Ser Gly Asp Pro Pro Leu Leu Lys Phe Lys Ala Pro Ile Glu Glu		
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<211> 753

<212> DNA

<213> Homo sapiens

<400> 3171

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<210> 3172

<211> 228

<212> PRT

<213> Homo sapiens

<400> 3172

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Gly Thr Ser Asp Ala Glu Thr Ser Ala Leu His Ile Val Val Gly Asp
      35           40           45
Ser Leu Ala Met Asp Val Ser Ser Val His His Asn Ser Thr Leu Leu
      50           55           60
Arg Tyr Ser Val Ser Leu Leu Gly Tyr Gly Phe Tyr Gly Asp Ile Ile
      65           70           75           80
Lys Asp Ser Glu Lys Lys Arg Trp Leu Gly Leu Ala Arg Tyr Asp Phe
      85           90           95
Ser Gly Leu Lys Thr Phe Leu Ser His His Cys Tyr Glu Gly Thr Val
      100          105          110
Ser Phe Leu Pro Ala Gln His Thr Val Gly Ser Pro Arg Asp Arg Lys
      115          120          125
Pro Cys Arg Ala Gly Cys Phe Val Cys Arg Gln Ser Lys Gln Gln Leu
      130          135          140
Glu Glu Glu Gln Lys Lys Ala Leu Tyr Gly Leu Glu Ala Ala Glu Asp
      145          150          155          160
Val Glu Glu Trp Gln Val Val Cys Gly Lys Phe Leu Ala Ile Asn Ala
      165          170          175
Thr Asn Met Ser Cys Ala Cys Arg Arg Ser Pro Arg Gly Leu Ser Pro
      180          185          190
Ala Ala His Leu Gly Asp Gly Ser Ser Asp Leu Ile Leu Ile Arg Lys
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Cys Ser Arg Phe Asn Phe Leu Arg Phe Leu Ile Trp His Glu Val Cys
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Lys Lys Pro Leu
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<210> 3173

<211> 573

<212> DNA

<213> Homo sapiens

<400> 3173

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420

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<211> 152
<212> PRT
<213> Homo sapiens

<400> 3174
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35 40 45
Val Ala Gln Tyr Phe Arg Glu Lys Tyr Thr Leu Gln Leu Lys Tyr Pro
50 55 60
His Leu Pro Cys Leu Gln Val Gly Gln Glu Gln Lys His Thr Tyr Leu
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Pro Leu Glu Val Cys Asn Ile Val Ala Gly Gln Arg Cys Ile Lys Lys
85 90 95
Leu Thr Asp Asn Gln Thr Ser Thr Met Ile Lys Ala Thr Ala Arg Ser
100 105 110
Ala Pro Asp Arg Gln Glu Glu Ile Ser Arg Leu Val Arg Ser Ala Asn
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<211> 948
<212> DNA
<213> Homo sapiens

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<210> 3176
<211> 92
<212> PRT
<213> Homo sapiens

<400> 3176
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35 40 45
Arg Gly Asn Glu Tyr Gln Pro Ser Asn Ile Lys Arg Lys Asn Lys His
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Gly Trp Val Arg Arg Leu Ser Thr Pro Ala Gly Val Gln Val Ile Leu
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Arg Arg Met Leu Lys Gly Arg Lys Ser Leu Ser His
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<210> 3177
<211> 1857
<212> DNA
<213> Homo sapiens

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<210> 3178

<211> 273
<212> PRT
<213> Homo sapiens

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35 40 45
Leu Leu Ser Asn Leu Ala Thr Arg Leu Trp Leu Arg Asn Gly Ala Pro
50 55 60
Val Asn Ala Ser Ala Ser Cys His Val Leu Pro Thr Gly Asp Leu Leu
65 70 75 80
Leu Val Gly Thr Gln Gln Leu Gly Glu Phe Gln Cys Trp Ser Leu Glu
85 90 95
Glu Gly Phe Gln Gln Leu Val Ala Ser Tyr Cys Pro Glu Val Val Glu
100 105 110
Asp Gly Val Ala Asp Gln Thr Asp Glu Gly Gly Ser Val Pro Val Ile
115 120 125
Ile Ser Thr Ser Arg Val Ser Ala Pro Ala Gly Gly Lys Ala Ser Trp
130 135 140
Gly Ala Asp Arg Ser Tyr Trp Lys Glu Phe Leu Val Met Cys Thr Leu
145 150 155 160
Phe Val Leu Ala Val Leu Leu Pro Val Leu Phe Leu Leu Tyr Arg His
165 170 175
Arg Asn Ser Met Lys Val Phe Leu Lys Gln Gly Glu Cys Ala Ser Val
180 185 190
His Pro Lys Thr Cys Pro Val Val Leu Pro Pro Glu Thr Arg Pro Leu
195 200 205
Asn Gly Leu Gly Pro Pro Ser Thr Pro Leu Asp His Arg Gly Tyr Gln
210 215 220
Ser Leu Ser Asp Ser Pro Pro Gly Ala Arg Val Phe Thr Glu Ser Glu
225 230 235 240
Lys Arg Pro Leu Ser Ile Gln Asp Ser Phe Val Glu Val Ser Pro Val
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<210> 3179
<211> 3447
<212> DNA
<213> Homo sapiens

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3447

<210> 3180
<211> 127
<212> PRT
<213> Homo sapiens

<400> 3180
Met Ser Phe Thr Asn Lys Ser Arg Gln Val Ser Gln Pro Glu Ile Ser
1 5 10 15
Thr Gln Thr Asp Gly Arg Asp Val Asn Ser Cys Leu Lys Leu Arg Cys
20 25 30
Ala Phe Thr Pro Thr Gly Lys Val Lys Leu Thr Phe Val Phe Leu Phe
35 40 45
Asn Asn Phe Met Ile Asn Lys Glu Leu Gln Leu Glu Thr Lys Ala Asn
50 55 60
Ser Arg Asn Ser Leu Thr Pro Ser Cys Pro Met Val Phe Met Ile Ala
65 70 75 80
Cys Tyr Gln Asn Glu Ala Leu Cys Ser Thr Leu Tyr Ser Lys Ala Phe
85 90 95
Tyr Ala Pro Thr Arg Pro Ser Gly Ile Pro Glu Ser Ala Leu His Thr
100 105 110
Gly Arg Lys Thr Ala Ser Ser Tyr Arg Leu Cys Glu Asn Thr Gln
115 120 125

<210> 3181
<211> 287
<212> DNA
<213> Homo sapiens

<400> 3181
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ggacgcgcgc cgcaacaagt gccgcattcg cctggggcggg cacatgaagc aggggggcct
120
cctcaaggac ggctgggctt ctccctgcac tcgcagctcg ccaagttcct gttggaccgg
180
tacacttctt caggctgtgt cctctgtgca ggtcctgagc ttttgctcc aaaaggctctg
240
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287

<210> 3182
<211> 95
<212> PRT
<213> Homo sapiens

<400> 3182
Met Ala Ser Ser Pro Ala Val Asp Val Ser Cys Arg Arg Arg Gly Glu
1 5 10 15
Arg Arg Gln Leu Asp Ala Arg Arg Asn Lys Cys Arg Ile Arg Leu Gly
20 25 30
Gly His Met Lys Gln Gly Gly Leu Leu Lys Asp Gly Trp Ala Ser Pro

	35					40						45			
Cys	Thr	Arg	Ser	Ser	Pro	Ser	Ser	Cys	Trp	Thr	Gly	Thr	Leu	Leu	Gln
	50					55					60				
Ala	Val	Ser	Ser	Val	Gln	Val	Leu	Ser	Phe	Cys	Leu	Gln	Lys	Val	Cys
65					70					75				80	
Ser	Ile	Trp	Cys	Ser	Cys	Leu	Met	Pro	His	Thr	Gly	Asp	Ala	Pro	
			85					90						95	

<210> 3183
<211> 1457
<212> DNA
<213> Homo sapiens

<400> 3183
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acacatatcc cacgtaatgc aggggtactcc tttgtccaga cccagctcct ggttcccaaa
120
aaagttctcc ctgagagctg caggctgtcc tggaatctcc tcggggatga ggcagctgccc
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gagctggccc aggtgctgcc gcagatgggc cggctgaaga gagtggacct ggagaagaat
240
cagatcacag ctttgggggc ctggctcctg gctgaaggac tggcccaggg gtctagcatc
300
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360
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420
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480
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720
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840
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ggctcaaggg ccagggtctt ggaacaagcc agggactcag ccattaagtc cctcctgcc
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1140
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1200

tgtaagggac aaagccaggt ctaatggtac tgggtagggg gcactgccaa gacaataagc
1260
taggctactg ggtccagcta ctactttggt gggattcagg tgagtctcca tgcacttcac
1320
atgttaccca gtgttcttgt tacttccaag gagaaccaag aatggctctg tcacactcga
1380
agccaggttt gatcaataaa cacaatggta ttccaaaaaa aaaaaaaaaa aaaaaaaaaa
1440
aaaaaaaaaa aaaaaaa
1457

<210> 3184
<211> 140
<212> PRT
<213> Homo sapiens

<400> 3184
Xaa Tyr Val Ser Cys Ile Val Met Thr Pro Ser Leu Cys Val Ala Cys
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Pro Gln Leu Ile Thr His Ile Pro Arg Asn Ala Gly Tyr Ser Phe Val
20 25 30
Gln Thr Gln Leu Leu Val Pro Lys Lys Val Leu Pro Glu Ser Cys Arg
35 40 45
Leu Ser Trp Asn Leu Leu Gly Asp Glu Ala Ala Ala Glu Leu Ala Gln
50 55 60
Val Leu Pro Gln Met Gly Arg Leu Lys Arg Val Asp Leu Glu Lys Asn
65 70 75 80
Gln Ile Thr Ala Leu Gly Ala Trp Leu Leu Ala Glu Gly Leu Ala Gln
85 90 95
Gly Ser Ser Ile Gln Val Ile Arg Leu Trp Asn Asn Pro Ile Pro Cys
100 105 110
Asp Met Ala Gln His Leu Lys Ser Gln Glu Pro Arg Leu Asp Phe Ala
115 120 125
Phe Phe Asp Asn Gln Pro Gln Ala Pro Trp Gly Thr
130 135 140

<210> 3185
<211> 1433
<212> DNA
<213> Homo sapiens

<400> 3185
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120
cctggttaacc tgaggaggtg tagagcacc agaaggaagg gtaaaagcag ggggcaaagc
180
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240
gtagctttca gggctggcca caccctaagc cttgcaaaag ggcctcctgc aagggtggc
300
ccatggggtc ccaccttcc cagccagtga ggtagcatg gttaggagtc cacatgtgtg
360

caagtgtctg tgtggaggct catgtatgca tgttgttata tgcaaagctg cacatgacaa
420
tgtgcatgcc agtccagagt tagatgtacc tatgcagttg ccctcaagcg aagggtcata
480
tttggaaca aggatggctc taaacatgta agcgtgcatg tgggcatgta tgtatctggg
540
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600
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660
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720
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780
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840
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960
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1433

<210> 3186

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3186

Met	Pro	Leu	Leu	Trp	Phe	Val	Gln	Val	Thr	Gly	Val	Pro	Arg	Pro	Leu
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His	Asp	Gln	His	Pro	Val	Val	Gly	Gln	Leu	Leu	Gln	Val	Leu	Lys	Ala
			20					25					30		
Gly	Leu	Thr	His	Gly	Val	Leu	Val	Ser	Ile	Tyr	Asn	Gln	Ser	Trp	Ser
			35				40					45			
Leu	Arg	Gly	Arg	Ile	Gly	Gly	Trp	Gly	Arg	Val	Asn	Arg	Thr	Cys	His
		50				55					60				
Ser	Ile	Pro	Ser	Pro	Pro	His	Phe	Ser	Leu	Phe	Leu	Gly	Pro	Pro	His
65					70				75					80	
Met	Arg	Glu	Arg	Asp	Lys	Leu	Ala	Gln	Trp	Val	Gly	Ala	Gln	Ile	Gly

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<211> 860
<212> DNA
<213> Homo sapiens
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<210> 3188
<211> 120
<212> PRT
<213> Homo sapiens
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2402

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Glu Asp Leu Ile Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu		80
	85	90
Arg Ile Arg Leu Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr		95
	100	105
Leu Leu Gly Lys Pro Leu Leu Gly		110
	115	120

<210> 3189
 <211> 440
 <212> DNA
 <213> Homo sapiens

<400> 3189
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 120
 gactccctt ctgggccagt gctgccctgc tttctctgtc tctttcaggg tgtgtgtcc
 180
 gacctacca aagtgaccg gatgcatgga atcgacctg tgggtctggt cctgatggtg
 240
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 300
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<210> 3190
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 3190
Gly His Gly Trp Gly Arg Thr Leu Ala Trp Leu Ser Thr Arg Gly Leu
1 5 10 15
Ser Leu Gly Lys Gln Val Pro Val Phe Ser Thr Thr Cys Ile Pro Gln
20 25 30
Gly Ser Ile Leu Asp Ser Pro Ser Gly Pro Val Leu Pro Cys Phe Leu
35 40 45
Cys Leu Phe Gln Gly Val Leu Ser Asp Leu Thr Lys Val Thr Arg Met
50 55 60
His Gly Ile Asp Pro Val Val Leu Val Leu Met Val Gly Met Val Met
65 70 75 80
Phe Thr Leu Gly Phe Ala Gly Cys Val Gly Ala Leu Arg Glu Asn Ile
85 90 95
Cys Leu Leu Asn Phe Val Ser Gly His Arg Asp Lys Ser Gly Ile
100 105 110

<210> 3191
<211> 266
<212> DNA
<213> Homo sapiens

<400> 3191
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accttttgcg gcagtcgcta aattgccacg ggctgtcttt gctctctcta cttcggagcg
120
aacagcagga caatccacac ttccgtagcc tcctgggggc ggccgccgag ccagcccggg
180
gcccgccgcc ccagcaccgc ttgcagggca gaaaagagaa gagagttgac aacatcgaga
240
tacagaaatt catctcccaa aaagcg
266

<210> 3192
<211> 84
<212> PRT
<213> Homo sapiens

<400> 3192
Met Asn Phe Cys Ile Ser Met Leu Ser Thr Leu Phe Ser Phe Leu Pro
1 5 10 15
Cys Asn Gly Cys Trp Gly Gly Gly Pro Arg Ala Gly Ser Ala Ala Asp
20 25 30
Pro Arg Arg Leu Arg Lys Cys Gly Leu Ser Cys Cys Ser Leu Arg Ser
35 40 45
Arg Glu Ser Lys Asp Asp Pro Trp Gln Phe Ser Asp Cys Arg Lys Arg
50 55 60
Ser Arg Ser Met Ala Gln Val Ala Asp Thr Glu Gln Gly Thr Ile Ser
65 70 75 80
Pro Ser Ala Ser

<210> 3193
<211> 567
<212> DNA
<213> Homo sapiens

<400> 3193
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acagcctgcc tgagtgttca gatccaggct ctgccagag ctggatgtaa atttatgacc
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240
gagtcagcgg ttcatgcttt gcatgcaaag tgcccagccc ctggctcaaa gtctgtgttc
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420
ctgggccacc gtcctgcat cgggcagcag tttgctcaga tggagggtgaa ggtgggtcatg
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540
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567

<210> 3194
<211> 116
<212> PRT
<213> Homo sapiens

<400> 3194
Met Gln Ile Gln Pro Ser Ala Glu Ser Ala Val His Ala Leu His Ala
1 5 10 15
Lys Cys Pro Ala Pro Gly Ser Lys Ser Val Phe Ile Gln Thr Trp Val
20 25 30
Asn Tyr Cys Leu Pro Tyr Val Val Pro Val Gly Thr Pro Gly Ala Ala
35 40 45
Gly Leu Val Ile Pro Leu Phe Pro Cys Arg Pro Arg Phe Thr Tyr Phe
50 55 60
Pro Phe Ser Leu Gly His Arg Ser Cys Ile Gly Gln Gln Phe Ala Gln
65 70 75 80
Met Glu Val Lys Val Val Met Ala Lys Leu Leu Gln Arg Leu Glu Phe
85 90 95
Arg Leu Val Pro Gly Gln Arg Phe Gly Leu Gln Glu Gln Ala Thr Leu
100 105 110
Lys Pro Leu Asp
115

<210> 3195
<211> 987
<212> DNA
<213> Homo sapiens

<400> 3195
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gcctcgacta cgaacgcaag accaaagtgg acttcgatga cttcctccca gctatccgga
120
agccccagac acctacctcc ttggctggat cagccaaagg tgggcaagac ggttcacagc
180
gttcaagcat ccactttgaa acggaagagg ctaaccgttc ctttctctcg gggatcaaga
240
ccattttttaa gaagagcccg gageccaagg aggatcccg tcacctgtct gactcgtcct
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420
cggggaggaa agacgacgat gttgagagca taatgaagaa atacctccag aagtaggaac
480

cagttcagcc tccttgaagc tgcccttgaa gacttcccga ctctacaata acttggagac
540
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600
gcgagatgag cccacagagg catatcctgc ggggatgctg ggctcccagt gtggttggcc
660
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720
ggattccaga gaggatgatg ggtgcagata ggggtaggac tgtagaata gaaccaaccc
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900
tgatatatca aactgaaaca aatgctcctc ctccatgctc ccttaatccc catgcttgct
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987

<210> 3196
<211> 153
<212> PRT
<213> Homo sapiens

<400> 3196
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Leu Asp Tyr Glu Arg Lys Thr Lys Val Asp Phe Asp Asp Phe Leu Pro
20 25 30
Ala Ile Arg Lys Pro Gln Thr Pro Thr Ser Leu Ala Gly Ser Ala Lys
35 40 45
Gly Gly Gln Asp Gly Ser Gln Arg Ser Ser Ile His Phe Glu Thr Glu
50 55 60
Glu Ala Asn Arg Ser Phe Leu Ser Gly Ile Lys Thr Ile Leu Lys Lys
65 70 75 80
Ser Pro Glu Pro Lys Glu Asp Pro Ala His Leu Ser Asp Ser Ser Ser
85 90 95
Ser Ser Gly Ser Ile Val Ser Phe Lys Ser Ala Asp Ser Ile Lys Ser
100 105 110
Arg Pro Gly Ile Pro Arg Leu Ala Gly Asp Gly Gly Glu Arg Thr Ser
115 120 125
Pro Glu Arg Arg Glu Pro Gly Thr Gly Arg Lys Asp Asp Asp Val Ala
130 135 140
Ser Ile Met Lys Lys Tyr Leu Gln Lys
145 150

<210> 3197
<211> 5575
<212> DNA
<213> Homo sapiens

<400> 3197
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ctggctgaca cagcaagact atgtttaaaa aaaaagagag agaaaaaaaa acaagaagga
120
agagcaatgg cgacactgga tcgcaaagtg cccagtccgg aggcgtttct gggcaaacc
180
tggtcctcct ggatcgacgc cgccaaatta cactgctccg acaatgtaga tttagaagag
240
gctggaaaag aggggtggaaa aagcagggag gttatgaggc ttaataaaga agatatgcac
300
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<210> 3198
<211> 833
<212> PRT
<213> Homo sapiens

<400> 3198
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35 40 45
Val Met Arg Leu Asn Lys Glu Asp Met His Leu Phe Gly His Tyr Pro
50 55 60
Ala His Asp Asp Phe Tyr Leu Val Val Cys Ser Ala Cys Asn Gln Val
65 70 75 80
Val Lys Pro Gln Val Phe Gln Ser His Cys Glu Arg Arg His Gly Ser
85 90 95
Met Cys Arg Pro Ser Pro Ser Pro Val Ser Pro Ala Ser Asn Pro Arg
100 105 110
Thr Ser Leu Val Gln Val Lys Thr Lys Ala Cys Leu Ser Gly His His
115 120 125
Ser Ala Ser Ser Thr Ser Lys Pro Phe Lys Thr Pro Lys Asp Asn Leu
130 135 140
Leu Thr Ser Ser Ser Lys Gln His Thr Val Phe Pro Ala Lys Gly Ser
145 150 155 160
Arg Asp Lys Pro Cys Val Pro Val Pro Val Val Ser Leu Glu Lys Ile
165 170 175
Pro Asn Leu Val Lys Ala Asp Gly Ala Asn Val Lys Met Asn Ser Thr
180 185 190
Thr Thr Thr Ala Val Ser Ala Ser Pro Thr Ser Ser Ser Ala Val Ser

195 200 205
Thr Pro Pro Leu Ile Lys Pro Val Leu Met Ser Lys Ser Val Pro Pro
210 215 220
Ser Pro Glu Lys Ile Leu Asn Gly Lys Gly Ile Leu Pro Thr Thr Ile
225 230 235 240
Asp Lys Lys His Gln Asn Gly Thr Lys Asn Ser Asn Lys Pro Tyr Arg
245 250 255
Arg Leu Ser Glu Arg Glu Phe Asp Pro Asn Lys His Cys Gly Val Leu
260 265 270
Asp Pro Glu Thr Lys Lys Pro Cys Thr Arg Ser Leu Thr Cys Lys Thr
275 280 285
His Ser Leu Ser His Arg Arg Ala Val Pro Gly Arg Lys Lys Gln Phe
290 295 300
Asp Leu Leu Leu Ala Glu His Lys Ala Lys Ser Arg Glu Lys Glu Val
305 310 315 320
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325 330 335
Gln Ser Gly Pro Ala Gln Asp Ser Leu Leu Gly Ser Ser Gly Ser Ser
340 345 350
Gly Pro Glu Pro Lys Val Ala Ser Pro Ala Lys Ser Arg Pro Pro Asn
355 360 365
Ser Val Leu Pro Arg Pro Ser Ser Ala Asn Ser Ile Ser Ser Ser Thr
370 375 380
Ser Ser Asn His Ser Gly His Thr Pro Glu Pro Pro Leu Pro Pro Val
385 390 395 400
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405 410 415
Gly Ala Asp Glu Ser Glu Lys Leu Asp Cys Gln Phe Ser Thr His His
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Pro Arg Pro Leu Ala Phe Cys Ser Phe Gly Ser Arg Leu Met Gly Arg
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Gly Tyr Tyr Val Phe Asp Arg Trp Asp Arg Phe Arg Phe Ala Leu
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465 470 475 480
Pro Pro Ala Ala Asp Ser Pro Met Pro Ser Pro Ala Ala His Ile Thr
485 490 495
Thr Pro Val Pro Ala Ser Val Leu Gln Pro Phe Ser Asn Pro Ser Ala
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Val Tyr Leu Pro Ser Ala Pro Ile Ser Ser Arg Leu Thr Ser Ser Tyr
515 520 525
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Ala Thr Leu Ser Ile Met Asp Ser Thr Phe Lys Ala Pro Ser Ala Val
565 570 575
Ser Pro Ile Pro Ala Val Ile Pro Ser Pro Ser His Lys Pro Ser Lys
580 585 590
Thr Lys Thr Ser Lys Ser Ser Lys Val Lys Asp Leu Ser Thr Arg Ser
595 600 605
Asp Glu Ser Pro Ser Asn Lys Lys Arg Lys Pro Gln Ser Ser Thr Ser
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Ser Ser Ser Ser Ser Ser Ser Ser Ser Leu Gln Thr Ser Leu Ser Ser


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          645          650          655
Ala Leu Asn Ser Tyr Gln Ala Ala Pro Pro Tyr Asn Ser Leu Ser Val
          660          665          670
His Asn Ser Asn Asn Gly Val Ser Pro Leu Ser Ala Lys Leu Glu Pro
          675          680          685
Ser Gly Arg Thr Ser Leu Pro Gly Gly Pro Ala Asp Ile Val Arg Gln
          690          695          700
Val Gly Ala Val Gly Gly Ser Ser Asp Ser Cys Pro Leu Ser Val Pro
705          710          715          720
Ser Leu Ala Leu His Ala Gly Asp Leu Ser Leu Ala Ser His Asn Ala
          725          730          735
Val Ser Ser Leu Pro Leu Ser Phe Asp Lys Ser Glu Gly Lys Lys Arg
          740          745          750
Lys Asn Ser Ser Ser Ser Ser Lys Ala Cys Lys Ile Thr Lys Met Pro
          755          760          765
Gly Met Asn Ser Val His Lys Lys Asn Pro Pro Ser Leu Leu Ala Pro
770          775          780
Val Pro Asp Pro Val Asn Ser Thr Ser Ser Arg Gln Val Gly Lys Asn
785          790          795          800
Ser Ser Leu Ala Leu Ser Gln Ser Ser Pro Ser Ser Ile Ser Ser Pro
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<210> 3199
<211> 777
<212> DNA
<213> Homo sapiens

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<210> 3200

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3200

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20 25 30
Asp Thr Leu Phe Gly Ala Leu Arg Phe Leu Ala Ser Pro Ser Phe Trp
35 40 45
Val Ser Pro Arg Ser Pro Val Pro Ala Val Gly Ala Ala Cys Cys Met
50 55 60
Pro Gly Pro Ala Thr Ala Ser Gln Arg Ala Gly Ala Leu Thr Ser Thr
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Trp Ser Cys Leu Pro His Cys Ser Ser Arg Arg Val
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<210> 3201

<211> 390

<212> DNA

<213> Homo sapiens

<400> 3201

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<210> 3202

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3202

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Gly Thr Glu	Val Ser Ser Cys Thr	Gly Ala Arg Ile	Pro Asn Thr Ala
	35	40	45
Val Ala Glu	Gly Pro Gly Gly Val	Gln Val Pro Asn	Pro Ser Glu Pro
	50	55	60
Asp Pro Asp	Met Gly Pro Val Ser	Trp Gly Pro Pro	Leu Cys Pro Val
65	70	75	80
Val Ala Asp	Pro Glu Arg Glu Gly	Cys Gly Asp Ala	His Met Thr Leu
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Gly Ser Gln	Arg Gln Pro Leu Leu	Thr Leu Arg Val	Pro Gly Ala Ser
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<210> 3203
 <211> 1906
 <212> DNA
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<210> 3204

<211> 424

<212> PRT

<213> Homo sapiens

<400> 3204

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 35 40 45
 Ile Glu Lys Ala Tyr Ala Gln Gln Leu Ala Asp Trp Ala Arg Lys Trp
 50 55 60
 Arg Gly Thr Val Glu Lys Gly Pro Gln Tyr Gly Thr Leu Glu Lys Ala
 65 70 75 80
 Trp His Ala Phe Phe Thr Ala Ala Glu Arg Leu Ser Ala Leu His Leu
 85 90 95
 Glu Val Arg Glu Lys Leu Gln Gly Gln Asp Ser Glu Arg Val Arg Ala
 100 105 110
 Trp Gln Arg Gly Ala Phe His Arg Pro Val Leu Gly Gly Phe Arg Glu

115 120 125
 Ser Arg Ala Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro Trp Leu
 130 135 140
 Lys Arg Leu Lys Glu Val Glu Ala Ser Lys Lys Ser Tyr His Ala Ala
 145 150 155 160
 Arg Lys Asp Glu Lys Thr Ala Gln Thr Arg Glu Ser His Ala Lys Ala
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 Asp Ser Ala Val Ser Gln Glu Gln Leu Arg Lys Leu Gln Glu Arg Val
 180 185 190
 Glu Arg Cys Ala Lys Glu Ala Glu Lys Thr Lys Ala Gln Tyr Glu Gln
 195 200 205
 Thr Leu Ala Glu Leu His Arg Tyr Thr Pro Arg Tyr Met Glu Asp Met
 210 215 220
 Glu Gln Ala Phe Glu Thr Cys Gln Ala Ala Glu Arg Gln Arg Leu Leu
 225 230 235 240
 Phe Phe Lys Asp Met Leu Leu Thr Leu His Gln His Leu Asp Leu Ser
 245 250 255
 Ser Ser Glu Lys Phe His Glu Leu His Arg Asp Leu His Gln Gly Ile
 260 265 270
 Glu Ala Ala Ser Asp Glu Glu Asp Leu Arg Trp Trp Arg Ser Thr His
 275 280 285
 Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp Ser Leu
 290 295 300
 Asp Thr Gln Arg Thr Ile Ser Arg Lys Glu Lys Gly Gly Arg Ser Pro
 305 310 315 320
 Asp Glu Val Thr Leu Thr Ser Ile Val Pro Thr Arg Asp Gly Thr Ala
 325 330 335
 Pro Pro Pro Gln Ser Pro Gly Ser Pro Gly Thr Gly Gln Asp Glu Glu
 340 345 350
 Trp Ser Asp Glu Glu Ser Pro Arg Lys Ala Ala Thr Gly Val Arg Val
 355 360 365
 Arg Ala Leu Tyr Asp Tyr Ala Gly Gln Glu Ala Asp Glu Leu Ser Phe
 370 375 380
 Arg Ala Gly Glu Glu Leu Leu Lys Met Ser Glu Glu Asp Glu Gln Gly
 385 390 395 400
 Trp Cys Gln Gly Gln Leu Gln Ser Gly Arg Ile Gly Leu Tyr Pro Ala
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<210> 3205
 <211> 1482
 <212> DNA
 <213> Homo sapiens

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1380
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1482

<210> 3206

<211> 494

<212> PRT

<213> Homo sapiens

<400> 3206

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Arg Ser Pro Pro Gly Leu Ala Lys Thr Pro Leu Ser Ala Leu Gly Leu
20 25 30
Lys Pro His Asn Pro Ala Asp Ile Leu Leu His Pro Thr Gly Glu Pro

35 40 45
Arg Ser Tyr Val Glu Ser Val Ala Arg Thr Ala Val Ala Gly Pro Arg
50 55 60
Ala Gln Asp Ser Glu Pro Lys Ser Phe Ser Ala Pro Ala Thr Gln Ala
65 70 75 80
Tyr Gly His Glu Ile Pro Leu Arg Asn Gly Thr Leu Gly Gly Ser Phe
85 90 95
Val Ser Pro Ser Pro Leu Ser Thr Ser Ser Pro Ile Leu Ser Ala Asp
100 105 110
Ser Thr Ser Val Gly Ser Phe Pro Ser Gly Glu Ser Ser Asp Gln Gly
115 120 125
Pro Arg Thr Pro Thr Gln Pro Leu Leu Glu Ser Gly Phe Arg Ser Gly
130 135 140
Ser Leu Gly Gln Pro Ser Pro Ser Ala Gln Arg Asn Tyr Gln Ser Ser
145 150 155 160
Ser Pro Leu Pro Thr Val Gly Ser Ser Tyr Ser Ser Pro Asp Tyr Ser
165 170 175
Leu Gln His Phe Ser Ser Ser Pro Glu Ser Gln Ala Arg Ala Gln Phe
180 185 190
Ser Val Ala Gly Val His Thr Val Pro Gly Ser Pro Gln Ala Arg His
195 200 205
Arg Thr Val Gly Thr Asn Thr Pro Pro Ser Pro Gly Phe Gly Trp Arg
210 215 220
Ala Ile Asn Pro Ser Met Ala Ala Pro Ser Ser Pro Ser Leu Ser His
225 230 235 240
His Gln Met Met Gly Pro Pro Gly Thr Gly Phe His Gly Ser Thr Val
245 250 255
Ser Ser Pro Gln Ser Ser Ala Ala Thr Thr Pro Gly Ser Pro Ser Leu
260 265 270
Cys Arg His Pro Ala Gly Val Tyr Gln Val Ser Gly Leu His Asn Lys
275 280 285
Val Ala Thr Thr Pro Gly Ser Pro Ser Leu Gly Arg His Pro Gly Ala
290 295 300
His Gln Gly Asn Leu Ala Ser Gly Leu His Ser Asn Ala Ile Ala Ser
305 310 315 320
Pro Gly Ser Pro Ser Leu Gly Arg His Leu Gly Gly Ser Gly Ser Val
325 330 335
Val Pro Gly Ser Pro Cys Leu Asp Arg His Val Ala Tyr Gly Gly Tyr
340 345 350
Ser Thr Pro Glu Asp Arg Arg Pro Thr Leu Ser Arg Gln Ser Ser Ala
355 360 365
Ser Gly Tyr Gln Ala Pro Ser Thr Pro Ser Phe Pro Val Ser Pro Ala
370 375 380
Tyr Tyr Pro Gly Leu Ser Ser Pro Ala Thr Ser Pro Ser Pro Asp Ser
385 390 395 400
Ala Ala Phe Arg Gln Gly Ser Pro Thr Pro Ala Leu Pro Glu Lys Arg
405 410 415
Arg Met Ser Val Gly Asp Arg Ala Gly Ser Leu Pro Asn Tyr Ala Thr
420 425 430
Ile Asn Gly Lys Val Ser Ser Pro Val Ala Ser Gly Met Ser Ser Pro
435 440 445
Ser Gly Gly Ser Thr Val Ser Phe Ser His Thr Leu Pro Asp Phe Ser
450 455 460
Lys Tyr Ser Met Pro Asp Asn Ser Pro Glu Thr Arg Ala Lys Val Lys

465 470 475 480
Phe Val Gln Asp Thr Ser Lys Tyr Trp Tyr Lys Pro Lys Ile
 485 490

<210> 3207
<211> 495
<212> DNA
<213> Homo sapiens

<400> 3207
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120
ctgtcgcgca agctgcataa gatcctggag acgcggctgg acaacgacaa ggagatgtta
180
gaagctctca aggcactttc aacctttttt gttgaaaata gtctgcggac tcgaagaaat
240
ttacgtggag atattgaacg taaaagttaa gccatcaatg aagaatttgt aagcattttc
300
aaggaagtga aggaggaact tgaaagcata agcgaagatg ttcaagcaat gagcaactgt
360
tgtcaagata tgacaagtcg cctacaggca gcaaaggaac agactcaaga tttaatatga
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480
gcctttctat ccaag
495

<210> 3208
<211> 107
<212> PRT
<213> Homo sapiens

<400> 3208
Met Leu Glu Ala Leu Lys Ala Leu Ser Thr Phe Phe Val Glu Asn Ser
1 5 10 15
Leu Arg Thr Arg Arg Asn Leu Arg Gly Asp Ile Glu Arg Lys Ser Leu
20 25 30
Ala Ile Asn Glu Glu Phe Val Ser Ile Phe Lys Glu Val Lys Glu Glu
35 40 45
Leu Glu Ser Ile Ser Glu Asp Val Gln Ala Met Ser Asn Cys Cys Gln
50 55 60
Asp Met Thr Ser Arg Leu Gln Ala Ala Lys Glu Gln Thr Gln Asp Leu
65 70 75 80
Ile Val Asn Thr Thr Lys Leu Gln Ser Glu Ser Gln Lys Leu Glu Ile
85 90 95
Arg Ala Gln Val Ala Asp Ala Phe Leu Ser Lys
100 105

<210> 3209
<211> 346
<212> DNA
<213> Homo sapiens

<400> 3209
tggttcctcta ggtggggcag gtaggggggc cagcttcctg cttgctgggtg gttcagggtca
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tgcgtccagc cttgtccctt ctgacctggg ccctaccac ggggaaatgt tcccatagca
120
gaagaatcag cccacagtg caggggtgtg ttagtgggga acgggctctg ggctcctgtg
180
ggaaccaggg accccctatc ttggtaccgg tcattggatg tatccccagc tcatgcctgt
240
gtctgtcttg gcccggtgtg tcacctgtg ttcattcttc tccagccat ggctctcaa
300
actgggggtt tctctccct atgagggggg cctggatatg acgcgt
346

<210> 3210
<211> 95
<212> PRT
<213> Homo sapiens

<400> 3210
Met Arg Pro Ala Leu Ser Leu Leu Thr Trp Ala Leu Pro Thr Gly Lys
1 5 10 15
Cys Ser His Ser Arg Arg Ile Ser Pro Thr Val Gln Gly Cys Val Ser
20 25 30
Gly Glu Arg Ala Leu Gly Ser Cys Gly Asn Gln Gly Pro Pro Ile Leu
35 40 45
Val Pro Val Ile Gly Cys Ile Pro Ser Ser Cys Leu Cys Leu Ser Trp
50 55 60
Pro Val Trp Ser Pro Cys Val His Leu Ser Pro Ser His Gly Leu Ser
65 70 75 80
Asn Trp Gly Phe Arg Leu Pro Met Arg Gly Ser Trp Tyr Val Arg
85 90 95

<210> 3211
<211> 1728
<212> DNA
<213> Homo sapiens

<400> 3211
tccggaaata taaagttgag ctaccagttt tcagaaatcc atgaagactc taccgtctgc
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tggacaaaag attccaagtc gatagcccag gccaaagaaa gcgcagggga caactccagt
120
gtttccttgg ccatcgtgca agccagtccg aaggaccagg gactctatta ctgctgcatc
180
aagaacagct acggaaaagt gactgctgaa tttaacctca cagctgaagt tctcaaacag
240
ctgtcaagtc acacagaata ctaaaggatg tgaagagatt gaattcagcc aactcatctt
300
caaagaagac ttcctccatg acagctactt tggggggcgc ctgctgggtc agatcgccac
360
ggaggagctg cactttggag aaggggttca ccgcaaagcc ttccgcagca cagtgatgca
420

cggcctcatg cctgtcttca aacctggcca tgcctgtgtg ctttaagggtgc acaatgccat
480
tgcctatggg accagaaata atgatgagct catccaaagg aactacaaac tcgctgccca
540
ggaatgctat gttcaaaata ctgccaggta ttatgccaaag atctacgctg ctgaagcaca
600
gcctctggaa ggctttggag aagtacctga gatcattcct atttttctta tccatcggcc
660
tgagaacaat atcccgtatg ctacagtggg ggaggagctg attggagaat ttgtgaagta
720
ttccatcagg gatgggaaag aaataaactt cttgagaaga gaatcagaag ctggtcagaa
780
atgttgacac ttccagcact ggggtgtacca gaaaacaagt ggctgcctcc tggtagcgga
840
catgcaagggt gttaggaatga agctaactga cgttggcata gcaacgctgg ctaaagggtg
900
caagggtatt aaaggcaact gttccatgac cttcattgat cagtttaaag cactacacca
960
gtgtaacaag tattgcaaaa tgctgggact gaaatccctt caaaacaaca accagaaaca
1020
gaagcagccg agcattggga aaagcaaagt tcaaacaac tctatgacag taaagaaggc
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1140
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1200
cctgcagaga gtgcgtggca atccttactc ccagccgact gtgcgccaag atgcttctaa
1260
acctatcacc tgctgtcttc actcaaatga tttcagaaca ggatttgcca ccagggttat
1320
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1380
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1560
atcaagtgtg tccactgggt tctaatacgc tattgttgcc ggagggtgggt tctgtgacgt
1620
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1680
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1728

<210> 3212

<211> 87

<212> PRT

<213> Homo sapiens

<400> 3212

Ser Gly Asn Ile Lys Leu Ser Tyr Gln Phe Ser Glu Ile His Glu Asp

1

5

10

15

Ser Thr Val Cys Trp Thr Lys Asp Ser Lys Ser Ile Ala Gln Ala Lys

20 25 30
 Lys Ser Ala Gly Asp Asn Ser Ser Val Ser Leu Ala Ile Val Gln Ala
 35 40 45
 Ser Pro Lys Asp Gln Gly Leu Tyr Tyr Cys Cys Ile Lys Asn Ser Tyr
 50 55 60
 Gly Lys Val Thr Ala Glu Phe Asn Leu Thr Ala Glu Val Leu Lys Gln
 65 70 75 80
 Leu Ser Ser His Thr Glu Tyr
 85

<210> 3213
 <211> 348
 <212> DNA
 <213> Homo sapiens

<400> 3213
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 120
 gataaacatg cccaactcat cttggcccaa atcaataaga tgagaaatgg acagcatttc
 180
 tgtgatgtgc agctgcaagt tggacaggaa agtttttaaag ctcatcggct ggttttggct
 240
 gccagcagtc cttactttgc agctttgttc actggaggaa tgaaagagtc ctcaaaagat
 300
 gttgtaccga ttctaggaat tgaagcagga atctttcaga tactttcta
 348

<210> 3214
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 3214
 Met Ala Asn Glu Asp Cys Pro Lys Ala Ala Asp Ser Pro Phe Ser Ser
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 Asp Lys His Ala Gln Leu Ile Leu Ala Gln Ile Asn Lys Met Arg Asn
 20 25 30
 Gly Gln His Phe Cys Asp Val Gln Leu Gln Val Gly Gln Glu Ser Phe
 35 40 45
 Lys Ala His Arg Leu Val Leu Ala Ala Ser Ser Pro Tyr Phe Ala Ala
 50 55 60
 Leu Phe Thr Gly Gly Met Lys Glu Ser Ser Lys Asp Val Val Pro Ile
 65 70 75 80
 Leu Gly Ile Glu Ala Gly Ile Phe Gln Ile Leu Leu
 85 90

<210> 3215
 <211> 597
 <212> DNA
 <213> Homo sapiens

<400> 3215

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120
accttcaagt tcgacttgga cggggacgca cccgatgaaa ttgccacgta tatggtggag
180
catgacttta tcctgcagge cgagcgggaa acgttcacgc agcagatgaa ggatgtcatg
240
gacaaggcag aggacatgct cagcgaggac acagacgccg accgtggctc cgacccaggg
300
accagccgc cacacctcag cacctgcggc ctgggcaccg gggaggagag ccgacaatcc
360
caagccaacg cccccgtgta tcagcagaac gtccctgcaca ccgggaagag gtggttcac
420
atctgtccgg tgccctgagcc ccccgcccc gagggccctt gaatcttcgc cccacttcc
480
tctaagctcc ctgccgccag aagccagcca agattcagcg ccctataaag accagctgtc
540
ctcgaaggaa caaccagct ttctagccag tcagcagctc ctggggccagg cgggccc
597

<210> 3216
<211> 153
<212> PRT
<213> Homo sapiens

<400> 3216
Thr Arg Ala Arg Ser Arg Gln Glu Arg Ala Ser Arg Pro Arg Leu Thr
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Ile Leu Asn Val Cys Asn Thr Gly Asp Lys Met Val Glu Cys Gln Leu
20 25 30
Glu Thr His Asn His Lys Met Val Thr Phe Lys Phe Asp Leu Asp Gly
35 40 45
Asp Ala Pro Asp Glu Ile Ala Thr Tyr Met Val Glu His Asp Phe Ile
50 55 60
Leu Gln Ala Glu Arg Glu Thr Phe Ile Glu Gln Met Lys Asp Val Met
65 70 75 80
Asp Lys Ala Glu Asp Met Leu Ser Glu Asp Thr Asp Ala Asp Arg Gly
85 90 95
Ser Asp Pro Gly Thr Ser Pro Pro His Leu Ser Thr Cys Gly Leu Gly
100 105 110
Thr Gly Glu Glu Ser Arg Gln Ser Gln Ala Asn Ala Pro Val Tyr Gln
115 120 125
Gln Asn Val Leu His Thr Gly Lys Arg Trp Phe Ile Ile Cys Pro Val
130 135 140
Pro Glu Pro Pro Ala Pro Glu Gly Pro
145 150

<210> 3217
<211> 2570
<212> DNA
<213> Homo sapiens

<400> 3217

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120
acccatacca ggcactatga gctttacagg cgctgcaaac tggaggaaat gggctttaca
180
gatgtgggcc cagaaaacaa gccagtcagt gttcaagaga cctatgaagc caaaagacat
240
gagttccatg gtgaacgtca gaggaaggaa gaagaaatga aacagatggt tgtgcagcga
300
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360
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420
gaagaagaaa taattgcttt ctctaaaaag aaagctacct ccgagatatt tcacagccag
480
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600
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660
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720
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780
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900
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1020
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1080
gttgtagaa atgtttaagt tgctgttctg tgatgaatct aaatcttttc tcttgctacc
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1320
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1380
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1560
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1620

gttgaatcat tttattaaaa atacttttta agaaaaataac tatgaacatc tgaatattaa
 1680
 agatataaaa atgcacataa ttcataatttc aggtgggtatt tgcattcagt gccttactgg
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 1800
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 1860
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 1920
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 1980
 aacagctcag gatctcttag cattttaatt agatgtaatt gttgtcttt aactgtcaaa
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 2100
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 2280
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 2340
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 2460
 aactggggat tgggtgggca ggaaaagggtg atatccattc tttctgataa ctagatgggtg
 2520
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 2570

<210> 3218
 <211> 181
 <212> PRT
 <213> Homo sapiens

<400> 3218
 Gly Val Lys Ala Arg Gln Tyr Pro Trp Gly Val Val Gln Val Glu Asn
 1 5 10 15
 Glu Asn His Cys Asp Phe Val Lys Leu Arg Glu Met Leu Ile Cys Thr
 20 25 30
 Asn Met Glu Asp Leu Arg Glu Gln Thr His Thr Arg His Tyr Glu Leu
 35 40 45
 Tyr Arg Arg Cys Lys Leu Glu Glu Met Gly Phe Thr Asp Val Gly Pro
 50 55 60
 Glu Asn Lys Pro Val Ser Val Gln Glu Thr Tyr Glu Ala Lys Arg His
 65 70 75 80
 Glu Phe His Gly Glu Arg Gln Arg Lys Glu Glu Glu Met Lys Gln Met
 85 90 95
 Phe Val Gln Arg Val Lys Glu Lys Glu Ala Ile Leu Lys Glu Ala Glu
 100 105 110
 Arg Glu Leu Gln Ala Lys Phe Glu His Leu Lys Arg Leu His Gln Glu

115 120 125
Glu Arg Met Lys Leu Glu Glu Gln Arg Arg Leu Leu Glu Glu Glu Ile
130 135 140
Ile Ala Phe Ser Lys Lys Lys Ala Thr Ser Glu Ile Phe His Ser Gln
145 150 155 160
Ser Phe Leu Ala Thr Gly Ser Asn Leu Ser Lys Asp Lys Asp His Lys
165 170 175
Asn Ser Asn Phe Leu
180

<210> 3219
<211> 1241
<212> DNA
<213> Homo sapiens

<400> 3219
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120
gagcgggaga cagacatcct ggacgatgaa ttgccaaacc aggatgggtca cagtgcgggc
180
agcatgggca cactctcttc tctggacggg gtcaccaaca tcagtggagg gggctaccca
240
gaggccctgt cccactgac caacggtctg gacaagtcct accccatgga gcctatggtc
300
aatggaggag gctaccccta cgagtctgcc agccgggagg ggcctgcccc tgctggccac
360
acggccccc tgcggccctc ctactctgca caggagggtt tagctggcta ccagagggag
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480
ggatatgttc gctctcaatc cttttcggaa gctgaacccc agctgcccc agctccggtc
540
cgagggggaa gcagccggga ggctgtgcaa aggggactga attcgtggca gcagcagcag
600
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720
gagttcccgc gagcagcctc ccagcaggag attgaacagt ccatcgaaac actcaatatg
780
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acccctgagc cagccccacg ggccctctctg gagtctgtcc ctccctggcag gtcttactca
1020
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1080
gcctcttctt ccttgccctg cttccttccg accacccaca gccctccagg gcctcagcaa
1140

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1200
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1241

<210> 3220
<211> 413
<212> PRT
<213> Homo sapiens

<400> 3220
Ala Arg His Val Pro His Pro Ala Pro Gln Val Pro Pro Ser Arg Gly
1 5 10 15
Leu Gly Cys Ala Ser Ser Gly Arg His Val Val Pro Ala Gln Val His
20 25 30
Val Asn Gly Gly Xaa Val Thr Ser Glu Arg Glu Thr Asp Ile Leu Asp
35 40 45
Asp Glu Leu Pro Asn Gln Asp Gly His Ser Ala Gly Ser Met Gly Thr
50 55 60
Leu Ser Ser Leu Asp Gly Val Thr Asn Ile Ser Glu Gly Gly Tyr Pro
65 70 75 80
Glu Ala Leu Ser Pro Leu Thr Asn Gly Leu Asp Lys Ser Tyr Pro Met
85 90 95
Glu Pro Met Val Asn Gly Gly Gly Tyr Pro Tyr Glu Ser Ala Ser Arg
100 105 110
Ala Gly Pro Ala His Ala Gly His Thr Ala Pro Met Arg Pro Ser Tyr
115 120 125
Ser Ala Gln Glu Gly Leu Ala Gly Tyr Gln Arg Glu Gly Pro His Pro
130 135 140
Ala Trp Pro Gln Pro Val Thr Thr Ser His Tyr Ala His Asp Pro Ser
145 150 155 160
Gly Met Phe Arg Ser Gln Ser Phe Ser Glu Ala Glu Pro Gln Leu Pro
165 170 175
Pro Ala Pro Val Arg Gly Gly Ser Ser Arg Glu Ala Val Gln Arg Gly
180 185 190
Leu Asn Ser Trp Gln Gln Gln Gln Gln Gln Gln Gln Pro Arg Pro
195 200 205
Pro Pro Arg Gln Gln Glu Arg Ala His Leu Glu Ser Leu Val Ala Ser
210 215 220
Arg Pro Ser Pro Gln Pro Leu Ala Glu Thr Pro Ile Pro Ser Leu Pro
225 230 235 240
Glu Phe Pro Arg Ala Ala Ser Gln Gln Glu Ile Glu Gln Ser Ile Glu
245 250 255
Thr Leu Asn Met Leu Met Leu Asp Leu Glu Pro Ala Ser Ala Ala Ala
260 265 270
Pro Leu His Lys Ser Gln Ser Val Pro Gly Ala Trp Pro Gly Ala Ser
275 280 285
Pro Leu Ser Ser Gln Pro Leu Ser Gly Ser Ser Arg Gln Ser His Pro
290 295 300
Leu Thr Gln Ser Arg Ser Gly Tyr Ile Pro Ser Gly His Ser Leu Gly
305 310 315 320
Thr Pro Glu Pro Ala Pro Arg Ala Ser Leu Glu Ser Val Pro Pro Gly
325 330 335
Arg Ser Tyr Ser Pro Tyr Asp Tyr Gln Pro Cys Leu Ala Gly Pro Asn

	340		345		350										
Gln	Asp	Phe	His	Ser	Lys	Ser	Pro	Ala	Ser	Ser	Ser	Leu	Pro	Ala	Phe
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	370						375					380			
Leu	Pro	Gly	Leu	Thr	Ala	Gln	Pro	Leu	Leu	Ser	Pro	Lys	Glu	Ala	Thr
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<210> 3221

<211> 1585

<212> DNA

<213> Homo sapiens

<400> 3221

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1140

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<210> 3222

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3222

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Trp	Val	Glu	Glu	Pro	Gln	Arg	Ser	Cys	Thr	Ala	Arg	Arg	Trp	His	Ile
				20				25					30		
Gln	Ala	Thr	Gly	Gly	Val	Glu	Pro	Ala	Gly	Trp	Lys	Glu	Met	Arg	Cys
				35				40				45			
His	Leu	Arg	Ala	Asn	Gly	Tyr	Leu	Cys	Lys	Tyr	Gln	Phe	Glu	Val	Leu
	50				55				60						
Cys	Pro	Ala	Pro	Arg	Pro	Gly	Ala	Ala	Ser	Asn	Leu	Ser	Tyr	Arg	Ala
65				70					75					80	
Pro	Phe	Gln	Leu	His	Ser	Ala	Ala	Leu	Asp	Phe	Ser	Pro	Pro	Gly	Thr
				85				90						95	
Glu	Val	Ser	Ala	Leu	Cys	Arg	Gly	Gln	Leu	Pro	Ile	Ser	Val	Thr	Cys
				100				105					110		
Ile	Ala	Asp	Glu	Ile	Gly	Ala	Arg	Trp	Asp	Lys	Leu	Ser	Gly	Asp	Val
				115				120					125		
Leu	Cys	Pro	Cys	Pro	Gly	Arg	Tyr	Leu	Arg	Ala	Gly	Lys	Cys	Ala	Glu
	130				135						140				
Leu	Pro	Asn	Cys	Leu	Asp	Asp	Leu	Gly	Gly	Phe	Ala	Cys	Glu	Cys	Ala
145				150						155				160	
Thr	Gly	Phe	Glu	Leu	Gly	Lys	Asp	Gly	Arg	Ser	Cys	Val	Thr	Ser	Gly
				165				170					175		
Glu	Gly	Gln	Pro	Thr	Leu	Gly	Gly	Thr	Gly	Val	Pro	Thr	Arg	Arg	Pro
				180				185					190		
Pro	Ala	Thr	Ala	Thr	Ser	Pro	Val	Pro	Gln	Arg	Thr	Trp	Pro	Ile	Arg
				195				200					205		
Val	Asp	Glu	Lys	Leu	Gly	Glu	Thr	Pro	Leu	Val	Pro	Glu	Gln	Asp	Asn
	210				215						220				
Ser	Val	Thr	Ser	Ile	Pro	Glu	Ile	Pro	Arg	Trp	Gly	Ser	Gln	Ser	Thr
225				230						235				240	
Met	Ser	Thr	Leu	Gln	Met	Ser	Leu	Gln	Ala	Glu	Ser	Lys	Ala	Thr	Ile

245 250 255
Thr Pro Ser Gly Ser Val Ile Ser Lys Phe Asn Ser Thr Thr Ser Ser
260 265 270
Ala Thr Pro Gln Ala Phe Asp Ser Ser Ser Ala Val Val Phe Ile Phe
275 280 285
Val Ser Thr Ala Val Val Val Leu Val Ile Leu Thr Met Thr Val Leu
290 295 300
Gly Leu Val Lys Leu Cys Phe His Glu Ser Pro Ser Ser Gln Pro Arg
305 310 315 320
Lys Glu Ser Met Gly Pro Pro Gly Cys Asp Glu
325 330

<210> 3223
<211> 985
<212> DNA
<213> Homo sapiens

<400> 3223
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120
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180
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240
ctggcctcct atgtgttctt gggccttggg gagctgcttc tgcctgcaa ctgggcagtg
300
gttgccgaca tctgtgtgtc tgtggtggtg cccagatgcc gggggacggc agaggcactt
360
cagatcacgg tgggccacat cctgggagac gctggcagcc cctatctcac aggacttacc
420
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480
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600
aatgatgtgg acagcaacga cctggagaga caaggcctac ttctggggcg tggcgctctt
660
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720
ccacagcagc agtgccctcg ttcctctttg gctgtcctcg gggactccgg ctgaggcaca
780
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840
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960
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985

<210> 3224

<211> 224
<212> PRT
<213> Homo sapiens

<400> 3224
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Ser Asn Pro Asp Ser Leu Ile Phe Gly Ala Leu Thr Ile Met Thr Gly
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Val Ile Gly Val Ile Leu Gly Ala Glu Ala Ser Arg Arg Tyr Lys Lys
35 40 45
Val Ile Pro Gly Ala Glu Pro Leu Ile Cys Ala Ser Ser Leu Leu Ala
50 55 60
Thr Ala Pro Cys Leu Tyr Leu Ala Leu Val Leu Ala Pro Thr Thr Leu
65 70 75 80
Leu Ala Ser Tyr Val Phe Leu Gly Leu Gly Glu Leu Leu Leu Ser Cys
85 90 95
Asn Trp Ala Val Val Ala Asp Ile Leu Leu Ser Val Val Val Pro Arg
100 105 110
Cys Arg Gly Thr Ala Glu Ala Leu Gln Ile Thr Val Gly His Ile Leu
115 120 125
Gly Asp Ala Gly Ser Pro Tyr Leu Thr Gly Leu Ile Ser Ser Val Leu
130 135 140
Arg Pro Gly Ala Leu Thr Pro Leu Gln Arg Phe Arg Ser Leu Gln Gln
145 150 155 160
Ser Phe Leu Cys Cys Ala Phe Val Ile Ala Leu Gly Gly Gly Cys Phe
165 170 175
Leu Leu Thr Ala Leu Tyr Leu Glu Arg Asp Glu Thr Arg Ala Trp Gln
180 185 190
Pro Val Thr Gly Thr Pro Asp Ser Asn Asp Val Asp Ser Asn Asp Leu
195 200 205
Glu Arg Gln Gly Leu Leu Ser Gly Ala Gly Ala Ser Thr Glu Glu Pro
210 215 220

<210> 3225
<211> 506
<212> DNA
<213> Homo sapiens

<400> 3225
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120
agaggaacat tttaaatggc ctacgtccat gcaccttctt tattcaagaa gctaccaaga
180
attctgctg tttcccagtc cctaaaatgc ctgtgccatg tggcctgggt gaagaactag
240
tcccatgcca caggggtaca ggccccgctg tagtttggcc agcccaaccg cagcaagggg
300
aagtgaacc acagcctcaa cccacacaga ggatggaacc accttctgca gctaaaaata
360
accacaccgc ctttgaggtg agccacccaa gatgcaggtg gggctgtatg aaactccacg
420

aacatgggat gagtttcatt ttcaggggttc cgagggggcca tgagtgggtac caagatccct
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ggaggtgccc ttggtttccc atgtag
506

<210> 3226
<211> 137
<212> PRT
<213> Homo sapiens

<400> 3226
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Leu Arg Pro Cys Thr Phe Phe Ile Gln Glu Ala Thr Lys Asn Ser Ala
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Cys Phe Pro Val Pro Lys Met Pro Val Pro Cys Ala Leu Gly Glu Glu
35 40 45
Leu Val Pro Cys His Arg Gly Thr Gly Pro Ala Val Val Trp Pro Ala
50 55 60
Gln Pro Gln Gln Gly Glu Val Glu Pro Gln Pro Gln Pro Thr Gln Arg
65 70 75 80
Met Glu Pro Pro Ser Ala Ala Lys Asn Asn His Thr Ala Phe Glu Val
85 90 95
Ser His Pro Arg Cys Arg Trp Gly Cys Met Lys Leu His Glu His Gly
100 105 110
Met Ser Phe Ile Phe Arg Val Pro Arg Gly His Glu Trp Tyr Gln Asp
115 120 125
Pro Trp Arg Cys Pro Trp Phe Pro Met
130 135

<210> 3227
<211> 1623
<212> DNA
<213> Homo sapiens

<400> 3227
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120
gtgtttcctt cccgccaggc aagtgccctt agaaaccggg ccccgcccc ttcctggcct
180
gcattcccat cccctctccc ggggaggagg tgaggacctc cttggttcct ttggttctgt
240
cagtgaagccc cttccttggc catgaagctc gtgaggaaga acatcgagaa ggacaatgcg
300
ggccagggtga ccttggtccc cgaggagcct gaggacatgt ggcacactta caacctcgtg
360
cagggtgggag acagcctgcg cgcctccacc atccgcaagg tacagacaga gtcctccacg
420
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480
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540

gtcaagatgg gggcttacca caccatcgag ctggagccca accgccagtt caccctggcc
600
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720
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780
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900
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1380
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1440
acaatcttgt gtttcctaaa ctgttacagt acatttctca gcaccttgt gacagaaagc
1500
tgcaagaatg gcactttttg attcatacag ggatttctta tgtctttggc tacactagat
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1623

<210> 3228

<211> 385

<212> PRT

<213> Homo sapiens

<400> 3228

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			20					25					30		
Val	Gln	Val	Gly	Asp	Ser	Leu	Arg	Ala	Ser	Thr	Ile	Arg	Lys	Val	Gln
		35					40					45			
Thr	Glu	Ser	Ser	Thr	Gly	Ser	Val	Gly	Ser	Asn	Arg	Val	Arg	Thr	Thr
	50					55				60					
Leu	Thr	Leu	Cys	Val	Glu	Ala	Ile	Asp	Phe	Asp	Ser	Gln	Ala	Cys	Gln

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65          70          75          80
Leu Arg Val Lys Gly Thr Asn Ile Gln Glu Asn Glu Tyr Val Lys Met
      85          90          95
Gly Ala Tyr His Thr Ile Glu Leu Glu Pro Asn Arg Gln Phe Thr Leu
      100         105         110
Ala Lys Lys Gln Trp Asp Ser Val Val Leu Glu Arg Ile Glu Gln Ala
      115         120         125
Cys Asp Pro Ala Trp Ser Ala Asp Val Ala Ala Val Val Met Gln Glu
      130         135         140
Gly Leu Ala His Ile Cys Leu Val Thr Pro Ser Met Thr Leu Thr Arg
      145         150         155         160
Ala Lys Val Glu Val Asn Ile Pro Arg Lys Arg Lys Gly Asn Cys Ser
      165         170         175
Gln His Asp Arg Ala Leu Glu Arg Phe Tyr Glu Gln Val Val Gln Ala
      180         185         190
Ile Gln Arg His Ile His Phe Asp Val Val Lys Cys Ile Leu Val Ala
      195         200         205
Ser Pro Gly Phe Val Arg Glu Gln Phe Cys Asp Tyr Met Phe Gln Gln
      210         215         220
Ala Val Lys Thr Asp Asn Lys Leu Leu Leu Glu Asn Arg Ser Lys Phe
      225         230         235         240
Leu Gln Val His Ala Ser Ser Gly His Lys Tyr Ser Leu Lys Glu Ala
      245         250         255
Leu Cys Asp Pro Thr Val Ala Ser Arg Leu Ser Asp Thr Lys Ala Ala
      260         265         270
Gly Glu Val Lys Ala Leu Asp Asp Phe Tyr Lys Met Leu Gln His Glu
      275         280         285
Pro Asp Arg Ala Phe Tyr Gly Leu Lys Gln Val Glu Lys Ala Asn Glu
      290         295         300
Ala Met Ala Ile Asp Thr Leu Leu Ile Ser Asp Glu Leu Phe Arg His
      305         310         315         320
Gln Asp Val Ala Thr Arg Ser Arg Tyr Val Arg Leu Val Asp Ser Val
      325         330         335
Lys Glu Asn Ala Gly Thr Val Arg Ile Phe Ser Ser Leu His Val Ser
      340         345         350
Gly Glu Gln Leu Ser Gln Leu Thr Gly Val Ala Ala Ile Leu Arg Phe
      355         360         365
Pro Val Pro Glu Leu Ser Asp Gln Glu Gly Asp Ser Ser Ser Glu Glu
      370         375         380
Asp
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<210> 3229

<211> 1008

<212> DNA

<213> Homo sapiens

<400> 3229

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ggccggctaa ggtgcgcgtg ctcgctggtt ctaacccttc tgttgggcgt ttctgctgag

180

aggcgggagg cgctgagagt ctgtgaggag gtccgtggac agactgcttt gctcgttgtt
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<210> 3230

<211> 232

<212> PRT

<213> Homo sapiens

<400> 3230

Met	Glu	Asp	Gly	Lys	Arg	Glu	Arg	Trp	Pro	Thr	Leu	Met	Glu	Arg	Leu
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Cys	Ser	Asp	Gly	Phe	Ala	Phe	Pro	Gln	Tyr	Pro	Ile	Lys	Pro	Tyr	His
			20					25					30		
Leu	Lys	Arg	Ile	His	Arg	Ala	Val	Leu	Arg	Gly	Asn	Leu	Glu	Glu	Leu
			35				40					45			
Lys	Tyr	Leu	Leu	Leu	Thr	Tyr	Tyr	Asp	Ile	Asn	Lys	Arg	Asp	Arg	Lys
	50					55					60				
Glu	Arg	Thr	Ala	Leu	His	Leu	Ala	Cys	Ala	Thr	Gly	Gln	Pro	Glu	Met
65					70					75				80	
Val	His	Leu	Leu	Val	Ser	Arg	Arg	Cys	Glu	Leu	Asn	Leu	Cys	Asp	Arg
				85					90					95	
Glu	Asp	Arg	Thr	Pro	Leu	Ile	Lys	Ala	Val	Gln	Leu	Arg	Gln	Glu	Ala
			100					105					110		
Cys	Ala	Thr	Leu	Leu	Leu	Gln	Asn	Gly	Ala	Asp	Pro	Asn	Ile	Thr	Asp
		115				120						125			
Val	Phe	Gly	Arg	Thr	Ala	Leu	His	Tyr	Ala	Val	Tyr	Asn	Glu	Asp	Thr
	130					135					140				
Ser	Met	Ile	Glu	Lys	Leu	Leu	Ser	His	Gly	Thr	Asn	Ile	Glu	Glu	Cys

145 150 155 160
Ser Lys Asn Glu Tyr Gln Pro Leu Leu Leu Ala Val Ser Arg Arg Lys
 165 170 175
Val Lys Met Val Glu Phe Leu Leu Lys Lys Lys Ala Asn Val Asn Ala
 180 185 190
Ile Asp Tyr Leu Gly Arg Ser Ala Leu Ile Leu Ala Val Thr Leu Gly
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Glu Lys Asp Ile Val Ile Leu Leu Leu Gln His Asn Ile Asp Val Phe
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Ser Arg Asp Val Tyr Gly Lys Leu
225 230

<210> 3231
<211> 1367
<212> DNA
<213> Homo sapiens

<400> 3231
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gccacgtccg cccgtctccg ccttctgcat cgcggcttcg gcggcttcca cctagacacc
120
taacagtcgc ggagccggcc gcgtcgtgag ggggtcggca cggggagtcg ggcggtcttg
180
tgcattcttg ctacctgtgg gtccaagatg tcggacatcg gagactggtt caggagcatc
240
ccggcgatca cgcgtattg gtccgccgcc accgtcgccg tgcccttggt cggcaaactc
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tgaaggggag gcctcgggca gccgtctctc tcaagccaca tttctctcca gtgctgggtg
1020
cacttaacaa ctgcgttctg gctaacactg ttggacctga cccacactga atgtagtctt
1080

tcagtacgag acaaagtttc ttaaattccc aagaaaaata taagtgttcc acaagtttca
1140
cgattctcat tcaagtcctt actgctgtga agaacaaata ccaactgtgc aaattgcaaa
1200
actgactaca ttttttgggtg tttttttttt tcccccttcc gttctgaata atgggtttta
1260
gcgggtccta gtctgctggc attgagctgg ggctgggtca ccaaaccctt cccaaaagga
1320
cccttatctc tttcttgac acatgcctct ctccccctt cagcgt
1367

<210> 3232
<211> 251
<212> PRT
<213> Homo sapiens

<400> 3232
Met Ser Asp Ile Gly Asp Trp Phe Arg Ser Ile Pro Ala Ile Thr Arg
1 5 10 15
Tyr Trp Phe Ala Ala Thr Val Ala Val Pro Leu Val Gly Lys Leu Gly
20 25 30
Leu Ile Ser Pro Ala Tyr Leu Phe Leu Trp Pro Glu Ala Phe Leu Tyr
35 40 45
Arg Phe Gln Ile Trp Arg Pro Ile Thr Ala Thr Phe Tyr Phe Pro Val
50 55 60
Gly Pro Gly Thr Gly Phe Leu Tyr Leu Val Asn Leu Tyr Phe Leu Tyr
65 70 75 80
Gln Tyr Ser Thr Arg Leu Glu Thr Gly Ala Phe Asp Gly Arg Pro Ala
85 90 95
Asp Tyr Leu Phe Met Leu Leu Phe Asn Trp Ile Cys Ile Val Ile Thr
100 105 110
Gly Leu Ala Met Asp Met Gln Leu Leu Met Ile Pro Leu Ile Met Ser
115 120 125
Val Leu Tyr Val Trp Ala Gln Leu Asn Arg Asp Met Ile Val Ser Phe
130 135 140
Trp Phe Gly Thr Arg Phe Lys Ala Cys Tyr Leu Pro Trp Val Ile Leu
145 150 155 160
Gly Phe Asn Tyr Ile Ile Gly Gly Ser Val Ile Asn Glu Leu Ile Gly
165 170 175
Asn Leu Val Gly His Leu Tyr Phe Phe Leu Met Phe Arg Tyr Pro Met
180 185 190
Asp Leu Gly Gly Arg Asn Phe Leu Ser Thr Pro Gln Phe Leu Tyr Arg
195 200 205
Trp Leu Pro Ser Arg Arg Gly Gly Val Ser Gly Phe Gly Val Pro Pro
210 215 220
Ala Ser Met Arg Arg Ala Ala Asp Gln Asn Gly Gly Gly Gly Arg His
225 230 235 240
Asn Trp Gly Gln Gly Phe Arg Leu Gly Asp Gln
245 250

<210> 3233
<211> 975
<212> DNA
<213> Homo sapiens

<400> 3233
 nacgcgtacg tggaggagct ctgcgtgttt actatTTTTg gaaatgaaga aaatggaaag
 60
 accgttgttt accttgtggc tttccatctg tctttgttta tgtttgtatg gtcctattgg
 120
 atgacaattt tcacatctcc cgcttcccc tccaaagagt tctactgtc caattctgaa
 180
 aaggaacgtt atgaaaaaga attcagccaa gaaagacaac aagaaatttt gagaagagca
 240
 gcaagagctt tacctatcta taccacatca gcttcaaaaa ctatcagata ttgtgaaaaa
 300
 tgtcagctga ttaaactga tggggcgcat cactgctcag cctgtgactc atgtattctt
 360
 aagatggatc atccctgtcc ttgggtgaat aactgtgtgg gattttctaa ttacaaattc
 420
 ttctgtctgt ttttattgta ttccctatta tattgccttt tctgtggccgc acagttttag
 480
 agtacttaaa aaattttgga cgaaagaacc gacaaaaacc cgggccaaaa ttccacgtac
 540
 tttttctttt tctttgtgtc tgcaatgttc ttcacagcg tcctctcact tttcagctac
 600
 cactgctggc tttaaacagc attgtccaca gctccgtctg cagggtcagg gcatggcctc
 660
 tctccgtgtt cctgtgaaga gccttcattg gaatcatccc gggacatata gcttgaatgt
 720
 gctgtctggc tagccctccc acaagtcggt cactctgcac aaggaatccg agagctcacc
 780
 aaggatcagc acggtctggg gccaggtgg ggtggaacac gcacggtcca caagcaattc
 840
 tgtctttctc aaggcttttt cttgtgcagt atgaaatcct tcatatttca tatgaagtat
 900
 gtgccttctg gggcactgag ctccaggaact ccaaaaagac cccttcgggc cggatcccg
 960
 cttcaaggct gcccc
 975

<210> 3234

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3234

Xaa	Ala	Tyr	Val	Val	Glu	Leu	Cys	Val	Phe	Thr	Ile	Phe	Gly	Asn	Glu
1				5					10					15	
Glu	Asn	Gly	Lys	Thr	Val	Val	Tyr	Leu	Val	Ala	Phe	His	Leu	Phe	Phe
			20					25					30		
Val	Met	Phe	Val	Trp	Ser	Tyr	Trp	Met	Thr	Ile	Phe	Thr	Ser	Pro	Ala
		35				40					45				
Ser	Pro	Ser	Lys	Glu	Phe	Tyr	Leu	Ser	Asn	Ser	Glu	Lys	Glu	Arg	Tyr
	50				55				60						
Glu	Lys	Glu	Phe	Ser	Gln	Glu	Arg	Gln	Gln	Glu	Ile	Leu	Arg	Arg	Ala
65				70				75				80			
Ala	Arg	Ala	Leu	Pro	Ile	Tyr	Thr	Thr	Ser	Ala	Ser	Lys	Thr	Ile	Arg

	85		90		95										
Tyr	Cys	Glu	Lys	Cys	Gln	Leu	Ile	Lys	Pro	Asp	Arg	Ala	His	His	Cys
	100							105					110		
Ser	Ala	Cys	Asp	Ser	Cys	Ile	Leu	Lys	Met	Asp	His	Pro	Cys	Pro	Trp
	115						120					125			
Val	Asn	Asn	Cys	Val	Gly	Phe	Ser	Asn	Tyr	Lys	Phe	Phe	Leu	Leu	Phe
	130					135					140				
Leu	Leu	Tyr	Ser	Leu	Leu	Tyr	Cys	Leu	Phe	Val	Ala	Ala	Gln	Phe	
145					150					155					

<210> 3235
 <211> 551
 <212> DNA
 <213> Homo sapiens

<400> 3235
 ntggaaactg agcttcaaac atataagcat tctcgtcagg ggctagatga aatgtacaat
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 gaagccagaa ggcagcttcg agatgaatct cagttacgac aggatgtaga gaatgagcta
 120
 gcagtacaag ttagtatgaa gcatgagatt gaacttgcca tgaagttgct ggagaaagat
 180
 atccatgaga aacaagatac tctgataggg cttcgacaac aactagagga agttaagca
 240
 attaacatag agatgtatca aaagttgcag ggttctgaag atggcttgaa agaaaaaat
 300
 gaaataattg cccgactaga agaaaaaacc aataaaatta ctgcagccat gaggcagctg
 360
 gaacaaagat tgcagcaagc agagaaggcg caaatggaag ctgaagatga ggatgagaaa
 420
 tatctacaag aatgtctcag taaatctgat agtctgcaga aacaaatctc ccaaaggag
 480
 aaacagctgg tgcaactgga aactgacttg aagattgaga aggaatggag gcagactttg
 540
 caggaagatc t
 551

<210> 3236
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 3236
 Xaa Glu Thr Glu Leu Gln Thr Tyr Lys His Ser Arg Gln Gly Leu Asp
 1 5 10 15
 Glu Met Tyr Asn Glu Ala Arg Arg Gln Leu Arg Asp Glu Ser Gln Leu
 20 25 30
 Arg Gln Asp Val Glu Asn Glu Leu Ala Val Gln Val Ser Met Lys His
 35 40 45
 Glu Ile Glu Leu Ala Met Lys Leu Leu Glu Lys Asp Ile His Glu Lys
 50 55 60
 Gln Asp Thr Leu Ile Gly Leu Arg Gln Gln Leu Glu Glu Val Lys Ala
 65 70 75 80
 Ile Asn Ile Glu Met Tyr Gln Lys Leu Gln Gly Ser Glu Asp Gly Leu

85 90 95
Lys Glu Lys Asn Glu Ile Ile Ala Arg Leu Glu Glu Lys Thr Asn Lys
100 105 110
Ile Thr Ala Ala Met Arg Gln Leu Glu Gln Arg Leu Gln Gln Ala Glu
115 120 125
Lys Ala Gln Met Glu Ala Glu Asp Glu Asp Glu Lys Tyr Leu Gln Glu
130 135 140
Cys Leu Ser Lys Ser Asp Ser Leu Gln Lys Gln Ile Ser Gln Lys Glu
145 150 155 160
Lys Gln Leu Val Gln Leu Glu Thr Asp Leu Lys Ile Glu Lys Glu Trp
165 170 175
Arg Gln Thr Leu Gln Glu Asp
180

<210> 3237

<211> 1323

<212> DNA

<213> Homo sapiens

<400> 3237

nctctgggct gcgacctacc tcgcagaggg gtttgcacta aggcgctggg cgccgggctc
60
cgggcgctgt ggaccatggc tccgcccgcg gcgcctggcc gggaccgtgt gggccgtgag
120
gatgaggacc gttgggaagt acggggggac cgcaaggccc ggaagcccct ggtggagaag
180
aagcgacgcg cgcgatcaa cgagagtctt caggagtgtc ggctgctgct ggcgggcgcc
240
gaggtgcagg ccaagctgga gaacgccgaa gtgctggagc tgacggtgcg gcgggtccag
300
ggtgtgctgc ggggcccggc gcgcgagcgc gagcagctgc aggcggaagc gagcgagcgc
360
ttcgctgccg gctacatcca gtgcatgcac gaggtgcaca cgttcgtgtc cacgtgccag
420
gccatcgacg ctaccgtgc tgccgagctc ctgaaccatc tgctcgagtc catgccgtg
480
cgtgagggca gcagcttcca ggatctgctg ggggacgccc tggcggggcc acctagagcc
540
cctggacgga gtggctggcc tgcggggggc gctccgggat cccaatacc cagccccccg
600
ggtcctgggg acgacctgtg ctccgacctg gaggaggccc ctgaggctga actgagtcag
660
gtcctgctg aggggcccga cttggtgccc gcagccctgg gcagcctgac cacagcccaa
720
attgcccga gtgtctggag gccttggtga ccaatgccag ccagagtcct gcgggggtgg
780
gccccgccct cctggatct cctccctcct cccaggggtt cagatgtggt ggggtagggc
840
cctggaagtc tcccaggtct tccctccctc ctctgatgga tggcttgag ggcagccccct
900
ggtaaccagc ccagtcaggc cccagccccg tttcttaaga aacttttagg gaccctgcag
960
ctctggagtg ggtggaggga gggagctacg ggcaggagga agaattttgt agagctgcca
1020

gcgctctccc aggttcaccc acccaggctt caccagccct gtgcgggctc tgggggcaga
1080
ggtggcagaa atggtgctgg gcactagtgt tccaggcagc cctgggctaa aaaaaagctt
1140
gaacttgcca cttcagcggg gagatgagag gcaggtgcac tcagctgcac tgcccagagc
1200
tgtgatgctc tgtacatctt gttttagca cacttgagtt tgtgtattcc attgacatca
1260
aatgtgacaa ttttactaaa taaagaattt tggagttagt tacccttgaa aaaaaagtcg
1320
acg
1323

<210> 3238
<211> 249
<212> PRT
<213> Homo sapiens

<400> 3238
Xaa Leu Gly Cys Asp Leu Pro Arg Arg Gly Val Cys Thr Lys Ala Leu
1 5 10 15
Gly Ala Gly Leu Arg Ala Leu Trp Thr Met Ala Pro Pro Ala Ala Pro
20 25 30
Gly Arg Asp Arg Val Gly Arg Glu Asp Glu Asp Arg Trp Glu Val Arg
35 40 45
Gly Asp Arg Lys Ala Arg Lys Pro Leu Val Glu Lys Lys Arg Arg Ala
50 55 60
Arg Ile Asn Glu Ser Leu Gln Glu Leu Arg Leu Leu Leu Ala Gly Ala
65 70 75 80
Glu Val Gln Ala Lys Leu Glu Asn Ala Glu Val Leu Glu Leu Thr Val
85 90 95
Arg Arg Val Gln Gly Val Leu Arg Gly Arg Ala Arg Glu Arg Glu Gln
100 105 110
Leu Gln Ala Glu Ala Ser Glu Arg Phe Ala Ala Gly Tyr Ile Gln Cys
115 120 125
Met His Glu Val His Thr Phe Val Ser Thr Cys Gln Ala Ile Asp Ala
130 135 140
Thr Val Ala Ala Glu Leu Leu Asn His Leu Leu Glu Ser Met Pro Leu
145 150 155 160
Arg Glu Gly Ser Ser Phe Gln Asp Leu Leu Gly Asp Ala Leu Ala Gly
165 170 175
Pro Pro Arg Ala Pro Gly Arg Ser Gly Trp Pro Ala Gly Gly Ala Pro
180 185 190
Gly Ser Pro Ile Pro Ser Pro Pro Gly Pro Gly Asp Asp Leu Cys Ser
195 200 205
Asp Leu Glu Glu Ala Pro Glu Ala Glu Leu Ser Gln Ala Pro Ala Glu
210 215 220
Gly Pro Asp Leu Val Pro Ala Ala Leu Gly Ser Leu Thr Thr Ala Gln
225 230 235 240
Ile Ala Arg Ser Val Trp Arg Pro Trp
245

<210> 3239
<211> 432

<212> DNA
<213> Homo sapiens

<400> 3239
aaaaccaaag attctcctgg agttttctct aaactgggtg ttctcctgag gagagtgaca
60
agaaacttgg tgagaaataa gctggcagtg attacgcgtc tccttcagaa tctgatcatg
120
ggtttggtcc tccttttctt cgttctgcgg gtccgaagca atgtgctaaa gggtgctatc
180
caggaccgcg taggtctcct ttaccagttt gtgggcgcca ccccgtaac aggcattgctg
240
aacgctgtga atctgtttcc cgtgctgcga gctgtcagcg accaggagag tcaggacggc
300
ctctaccaga agtggcagat gatgctggcc tatgcactgc acgtcctccc cttcagcggt
360
gttgccacca tgattttcag cagtgtgtgc tactggacgc tgggcttaca tcctgaggtt
420
gcccgattgg gt
432

<210> 3240
<211> 144
<212> PRT
<213> Homo sapiens

<400> 3240
Lys Thr Lys Asp Ser Pro Gly Val Phe Ser Lys Leu Gly Val Leu Leu
1 5 10 15
Arg Arg Val Thr Arg Asn Leu Val Arg Asn Lys Leu Ala Val Ile Thr
20 25 30
Arg Leu Leu Gln Asn Leu Ile Met Gly Leu Phe Leu Leu Phe Phe Val
35 40 45
Leu Arg Val Arg Ser Asn Val Leu Lys Gly Ala Ile Gln Asp Arg Val
50 55 60
Gly Leu Leu Tyr Gln Phe Val Gly Ala Thr Pro Tyr Thr Gly Met Leu
65 70 75 80
Asn Ala Val Asn Leu Phe Pro Val Leu Arg Ala Val Ser Asp Gln Glu
85 90 95
Ser Gln Asp Gly Leu Tyr Gln Lys Trp Gln Met Met Leu Ala Tyr Ala
100 105 110
Leu His Val Leu Pro Phe Ser Val Val Ala Thr Met Ile Phe Ser Ser
115 120 125
Val Cys Tyr Trp Thr Leu Gly Leu His Pro Glu Val Ala Arg Leu Gly
130 135 140

<210> 3241
<211> 492
<212> DNA
<213> Homo sapiens

<400> 3241
gtggaatttt tttagacaaa gtctcaaaaa acaaacaaac aaacaaaagg taagataaat
60

acgaaataca aaataagagg caggaagagc ccaaagcatc agaaatgtgc cagttataat
120
gggcccacaaat cccctcttgt gtctccagaa gtatttgaaa aatacgttag gatctgcctc
180
acagacatgc tcccaggaca ctgcacagca aggaggtacg gcgggcccag ccagccaagg
240
cagaggagga catcactgcc acagcagggg gcctgactgg cagcaaaagg gacgactccg
300
gcgaaaagtc agcaggaaac aggacagggg ctggaccaat ggctccctc agccccacac
360
cccacccagg caggagcggg gcctggccccg gggcaggcgg gtgggagagc tcaactgagt
420
ggcagcaggg catggcccct gatgctgcag gtaccacaggc tgcagctgca gaaacctcag
480
tgggaaccca gg
492

<210> 3242
<211> 107
<212> PRT
<213> Homo sapiens

<400> 3242
Met Gly Gln Asn Pro Leu Leu Cys Leu Gln Lys Tyr Leu Lys Asn Thr
1 5 10 15
Leu Gly Ser Ala Ser Gln Thr Cys Ser Gln Asp Thr Arg Gln Gln Gly
20 25 30
Gly Thr Ala Gly Pro Ala Ser Gln Gly Arg Gly Gly His His Cys His
35 40 45
Ser Arg Gly Pro Asp Trp Gln Gln Lys Gly Arg Leu Arg Arg Lys Val
50 55 60
Ser Arg Lys Gln Asp Arg Gly Trp Thr Asn Gly Leu Pro Gln Pro His
65 70 75 80
Thr Pro Pro Arg Gln Glu Arg Cys Leu Ala Arg Gly Arg Arg Val Gly
85 90 95
Glu Leu Thr Glu Trp Ala Ala Gly His Gly Pro
100 105

<210> 3243
<211> 944
<212> DNA
<213> Homo sapiens

<400> 3243
gatctgcatt ttcaagttag caaagaccgc tatggagggc agccactttt ctgagagaag
60
ttccccaccc tttggtctgg ggcaaggagt acttacggag tgacaaaggg aaaagtctgc
120
tttgaggcaa aggtaaccca gaatctccca atgaaagaag gctgcacaga ggtctctctc
180
cttcgagttg ggtggtctgt tgatttttcc cgtccacagc ttggtgaaga tgaattctct
240
tacggtttcg atggacgagg actcaaggca gaaaatggac aatttgagga atttggccag
300

acctttgggg agaagatgt tattggctgc ttgctaatt ttgagactga agaagtagaa
 360
 ctttccttct ccaagaatgg agaagaccta ggtgtggcat tctggatcag caaggattcc
 420
 ctggcagacc gggcccttct accccatgtc ctctgcaaaa attgtgtgtt agaattaaac
 480
 ttccggtcaga aggaggagcc ctctctccca ccaccagaag agtttgtgtt cattcatgct
 540
 gtgcctgttg aggagcgtgt acgcactgca gtccctccca agaccataga ggaatgtgag
 600
 gtgattctga tgggtgggact acccggtatct ggaaagaccc agtgggcact gaaatatgca
 660
 aaagaaaacc ctgagaaaag atacaatgtc ctgggagctg agactgtgct caatcaaag
 720
 aggatgaagg gtctcgagga gccagagatg gaccccaaaa gccgagacct tttagttcag
 780
 caagcctccc agtgccttag taagctggtc cagattgctt cccggacaaa gaggaacttt
 840
 attcttgatc agtgtaatgt gtacaattct ggccaacggc ggaagctatt gctgttcaag
 900
 accttctctc ggaaagtggg ggtggtgtgc cctaagagg aaga
 944

<210> 3244

<211> 314

<212> PRT

<213> Homo sapiens

<400> 3244

Asp Leu His Phe Gln Val Ser Lys Asp Arg Tyr Gly Gly Gln Pro Leu
 1 5 10 15
 Phe Ser Glu Lys Phe Pro Thr Leu Trp Ser Gly Ala Arg Ser Thr Tyr
 20 25 30
 Gly Val Thr Lys Gly Lys Val Cys Phe Glu Ala Lys Val Thr Gln Asn
 35 40 45
 Leu Pro Met Lys Glu Gly Cys Thr Glu Val Ser Leu Leu Arg Val Gly
 50 55 60
 Trp Ser Val Asp Phe Ser Arg Pro Gln Leu Gly Glu Asp Glu Phe Ser
 65 70 75 80
 Tyr Gly Phe Asp Gly Arg Gly Leu Lys Ala Glu Asn Gly Gln Phe Glu
 85 90 95
 Glu Phe Gly Gln Thr Phe Gly Glu Asn Asp Val Ile Gly Cys Phe Ala
 100 105 110
 Asn Phe Glu Thr Glu Glu Val Glu Leu Ser Phe Ser Lys Asn Gly Glu
 115 120 125
 Asp Leu Gly Val Ala Phe Trp Ile Ser Lys Asp Ser Leu Ala Asp Arg
 130 135 140
 Ala Leu Leu Pro His Val Leu Cys Lys Asn Cys Val Val Glu Leu Asn
 145 150 155 160
 Phe Gly Gln Lys Glu Glu Pro Phe Phe Pro Pro Glu Glu Phe Val
 165 170 175
 Phe Ile His Ala Val Pro Val Glu Glu Arg Val Arg Thr Ala Val Pro
 180 185 190
 Pro Lys Thr Ile Glu Glu Cys Glu Val Ile Leu Met Val Gly Leu Pro

195 200 205
Gly Ser Gly Lys Thr Gln Trp Ala Leu Lys Tyr Ala Lys Glu Asn Pro
210 215 220
Glu Lys Arg Tyr Asn Val Leu Gly Ala Glu Thr Val Leu Asn Gln Met
225 230 235 240
Arg Met Lys Gly Leu Glu Glu Pro Glu Met Asp Pro Lys Ser Arg Asp
245 250 255
Leu Leu Val Gln Gln Ala Ser Gln Cys Leu Ser Lys Leu Val Gln Ile
260 265 270
Ala Ser Arg Thr Lys Arg Asn Phe Ile Leu Asp Gln Cys Asn Val Tyr
275 280 285
Asn Ser Gly Gln Arg Arg Lys Leu Leu Leu Phe Lys Thr Phe Ser Arg
290 295 300
Lys Val Val Val Val Val Pro Asn Glu Glu
305 310

<210> 3245
<211> 980
<212> DNA
<213> Homo sapiens

<400> 3245
tggatgagg gttctccctc caggccggga ctgacaccac tggccaggaa gtggctgaag
60
ctcagctgga tgaggatggg gatttgagcg tggtgagaag accacgagcc gcctctgatt
120
ccaacccagc agggcctctg agagacaagg tacatcccat gattctagca caggaagaag
180
acgacgtcct gggagaggaa gcacaaggca gcccgcacga tatcatcaga atagggtgtg
240
cggggcgccc tgctcctggc agactacatc ctgttccgac aggacctctt ccgaggatgt
300
acagcgctgg agctcggggc cggcacgggg ctgctagca tcatcgagc caccatggca
360
cggaccgttt attgtacaga tgcggtgca gatcttttgt ccatgtgcca gcgaaacatt
420
gccctcaaca gccacctggc tgccactgga ggtggtatag ttaggggtcaa agaactggac
480
tggctgaagg acgacctctg cacagatccc aagggtccct tcagttgggc acaagaggaa
540
atttctgacc tgtacgatca caccaccatc ctgtttgcag ccgaagtgtt ttacgacgac
600
gacttgactg atgctgtgtt taaaacgctc tcccgactcg cccacagatt gaaaaatgcc
660
tgacagcca tactgtcggg ggagaagagg ctcaacttca cactgagaca cttggacgtc
720
acatgtgaag cctacgatca cttccgctcc tgcctgcacg cgctggagca gctcacagat
780
ggcaagctgc gcttcgtggg ggagcccgtg gaggcctcct tcccacagct cctgggtttac
840
gagcgcctcc agcagctgga gctctggaag atcatcgagc aaccagtaac atgacccatc
900
gcctccacca ggcgcggcgt ctgactgtt cttagagtgt atttctagta aaatcagaag
960

ctcaccaaag caaaaaaaaaa
980

<210> 3246
<211> 219
<212> PRT
<213> Homo sapiens

<400> 3246
Val Trp Arg Gly Ala Leu Leu Leu Ala Asp Tyr Ile Leu Phe Arg Gln
1 5 10 15
Asp Leu Phe Arg Gly Cys Thr Ala Leu Glu Leu Gly Ala Gly Thr Gly
20 25 30
Leu Ala Ser Ile Ile Ala Ala Thr Met Ala Arg Thr Val Tyr Cys Thr
35 40 45
Asp Val Gly Ala Asp Leu Leu Ser Met Cys Gln Arg Asn Ile Ala Leu
50 55 60
Asn Ser His Leu Ala Ala Thr Gly Gly Gly Ile Val Arg Val Lys Glu
65 70 75 80
Leu Asp Trp Leu Lys Asp Asp Leu Cys Thr Asp Pro Lys Val Pro Phe
85 90 95
Ser Trp Ser Gln Glu Glu Ile Ser Asp Leu Tyr Asp His Thr Thr Ile
100 105 110
Leu Phe Ala Ala Glu Val Phe Tyr Asp Asp Asp Leu Thr Asp Ala Val
115 120 125
Phe Lys Thr Leu Ser Arg Leu Ala His Arg Leu Lys Asn Ala Cys Thr
130 135 140
Ala Ile Leu Ser Val Glu Lys Arg Leu Asn Phe Thr Leu Arg His Leu
145 150 155 160
Asp Val Thr Cys Glu Ala Tyr Asp His Phe Arg Ser Cys Leu His Ala
165 170 175
Leu Glu Gln Leu Thr Asp Gly Lys Leu Arg Phe Val Val Glu Pro Val
180 185 190
Glu Ala Ser Phe Pro Gln Leu Leu Val Tyr Glu Arg Leu Gln Gln Leu
195 200 205
Glu Leu Trp Lys Ile Ile Ala Glu Pro Val Thr
210 215

<210> 3247
<211> 977
<212> DNA
<213> Homo sapiens

<400> 3247
ntctagaacc cagccctgtg gaagtatgtg cggcccaggg gctgtgtgct ggagtgggta
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cgcaacatcg tggccaaccg cctggcctcg gatggggcca cctgggcaga catcttcaag
120
aggttcaaca gcggcacgta taacaaccag tggatgatcg tggactacaa ggcgttcac
180
ccgggtgggc ccagccccgg gagccgggtg cttaccatcc tggagcagat ccccgcatg
240
gtggtggtgg ctgacaagac ctggagctc taccagaaga cctactgggc cagctacaac
300

ataccgtcct tcgagactgt gtccaatgcc agtgggctgc aggcctagt ggcccagtat
 360
 ggggactggt tttcttatga cgggagcccc cgggcccaga tcttcggcg gaaccagtca
 420
 ctggtacaag acatggactc catggtcagg ctgatgaggt acaatgactt cctccatgac
 480
 cctctgtcac tgtgcaaagc ctgcaacccc cagcccaatg gggagaatgc tatctccgcc
 540
 cgctccgacc tcaacccggc caatggctcc tacccttcc aggcctacg tcagcgtcc
 600
 catgggggta tcgatgtgaa ggtgaccagc atgtcactgg ccaggatcct gagcctgctg
 660
 gcggccagcg gtcccacgtg ggaccaggtg ccccgcttc agtggagcac ctgcacctc
 720
 agcggcctgc tgcacatggg ccagccagac ctctggaagt tcgcgcctgt caaggtttca
 780
 tgggactgaa gttctgtccc tgetctgctg ctttcgcccc tgetgacct cgtcagggtc
 840
 acccccgctc caagccacc ggacttctaa ctccagcccc tctgggggc ttcgttctct
 900
 gatctggggt ctgagtcac tcctcctaga gtgggtcacg aacctgatgg ggctcagaac
 960
 tgacccctc tctcccc
 977

<210> 3248

<211> 260

<212> PRT

<213> Homo sapiens

<400> 3248

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Trp Asp Gln Val Pro Pro Phe Gln Trp Ser Thr Ser Pro Phe Ser Gly
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Thr	Arg	Pro	His	Ala	Gly	Asp	Arg	Asp	Pro	Arg	Gly	Ala	Pro	Gly	Gly
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Ser	Arg	Arg	Gln	Asp	Glu	Ala	Leu	Arg	Glu	Leu	Arg	His	Gly	His	Val
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755	760	765
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Asp Gly Pro Pro Asp Ser Thr Ser Thr Cys Leu Pro Pro Glu Pro Asp		
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Ser Leu Leu Gly Cys Ser Ser Ser Gln Arg Ala Ala Ser Leu Asp Ser		
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Arg Lys Glu Arg Leu Met Arg Ser Ser Thr Asp Ser Leu Pro Gly Glu
180 185 190
Leu Arg Gly Arg Pro Arg Pro Asp Phe Pro Pro Thr Thr Arg Gly Asp
195 200 205
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aaacgacaga cagcttctct cctagg
686

<210> 3254
<211> 180
<212> PRT
<213> Homo sapiens

<400> 3254
Met Ala Gly Val Lys Tyr Pro Gly Gln Asp Pro Val Asp Leu Asp Ile
1 5 10 15
Tyr Gln Ser Ser His Met Val Asp Tyr Gln Pro Tyr Arg Lys His Lys
20 25 30
Tyr Ser Arg Val Thr Pro Gln Glu Gln Ala Lys Leu Asp Ala Gln Leu
35 40 45
Arg Asp Lys Glu Phe Tyr Arg Pro Ile Pro Asn Pro Asn Pro Lys Leu
50 55 60
Thr Asp Gly Tyr Pro Ala Phe Lys Arg Pro His Met Thr Ala Lys Asp
65 70 75 80
Leu Gly Leu Pro Gly Phe Phe Pro Ser Gln Glu His Glu Ala Thr Arg
85 90 95
Glu Asp Glu Arg Lys Phe Thr Ser Thr Cys His Phe Thr Tyr Pro Ala
100 105 110
Ser His Asp Leu His Leu Ala Gln Gly Asp Pro Asn Gln Val Leu Gln
115 120 125
Ser Ala Asp Phe Pro Cys Leu Val Asp Pro Lys His Gln Pro Ala Ala
130 135 140
Glu Met Ala Lys Gly Tyr Leu Leu Leu Pro Gly Cys Pro Cys Leu His
145 150 155 160
Cys His Ile Val Lys Val Pro Ile Leu Asn Arg Trp Gly Pro Leu Met
165 170 175
Pro Phe Tyr Gln
180

<210> 3255
<211> 724
<212> DNA
<213> Homo sapiens

<400> 3255

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 gcgagaggag aggacggcga tcgtagggga cacctgagag tcagaggccc gagggggctg
 120
 ggactcatgt cgaggtcggg gaaggatgta aaacccggac ggacatcact gtaggccgca
 180
 cctgctgaga ggccagagct gcctccttga gagtgaagtt gtttacagac aagagaagag
 240
 atcttggcgg acacatcaca gctagccgcg aatcccgaag ggtcagcaga gcctagaaag
 300
 gaatatgagg ggggtcggaa tgaggcaggc gaaaggcacg gacgtgggag ggcacggcta
 360
 cccaacgggg acacctacga agggagctac gaattcggta aaagacatgg ccaggggatac
 420
 tacaattta aaaatggtgc tcgatataac ggagaatatg ttagaaataa aaagcacggt
 480
 caaggcactt ttatatatcc agatggatcc agatatgaag gagagtgggc aaatgacctg
 540
 cggcacggcc atggcgtata ctactacatc aataatgaca cctacactgg agagtggttt
 600
 gctcatcaaa ggcattggca aggcacctat ttatacgag agacgggcag taagtatgtt
 660
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 720
 tacc
 724

<210> 3256

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3256

Ser Cys Leu Gln Thr Arg Glu Glu Ile Leu Ala Asp Thr Ser Gln Leu
 1 5 10 15
 Ala Ala Asn Pro Glu Gly Ser Ala Glu Pro Arg Lys Glu Tyr Glu Gly
 20 25 30
 Gly Arg Asn Glu Ala Gly Glu Arg His Gly Arg Gly Arg Ala Arg Leu
 35 40 45
 Pro Asn Gly Asp Thr Tyr Glu Gly Ser Tyr Glu Phe Gly Lys Arg His
 50 55 60
 Gly Gln Gly Ile Tyr Lys Phe Lys Asn Gly Ala Arg Tyr Ile Gly Glu
 65 70 75 80
 Tyr Val Arg Asn Lys Lys His Gly Gln Gly Thr Phe Ile Tyr Pro Asp
 85 90 95
 Gly Ser Arg Tyr Glu Gly Glu Trp Ala Asn Asp Leu Arg His Gly His
 100 105 110
 Gly Val Tyr Tyr Tyr Ile Asn Asn Asp Thr Tyr Thr Gly Glu Trp Phe
 115 120 125
 Ala His Gln Arg His Gly Gln Gly Thr Tyr Leu Tyr Ala Glu Thr Gly
 130 135 140
 Ser Lys Tyr Val Gly Thr Trp Val Asn Gly Gln Gln Glu Gly Thr Ala
 145 150 155 160
 Glu Leu Ile His Leu Asn His Arg Tyr

165

<210> 3257
<211> 368
<212> DNA
<213> Homo sapiens

<400> 3257
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cgctcacctc accactacta ccgctctggt gatttgtcta cagcaaccaa gagcgaaaca
120
agtgaagaca tcagccagac ctccaagtac agtcccatct actcgccaga cccctactat
180
gcttcggagt ctgagtactg gacctaccat ggggtcccca aagtgccccg agccagaagg
240
ttctcgtctg gaggagagga ggatgatttt gaccgcagca tgcacaagct ccaaagtgga
300
attggccggc tgattctgaa ggaagaaatg aaggcccggt cgagctccta tgcagatccc
360
tggcgcgc
368

<210> 3258
<211> 122
<212> PRT
<213> Homo sapiens

<400> 3258
Xaa Pro Gly Tyr Ile Asp Ser Pro Thr Tyr Ser Arg Gln Gly Met Ser
1 5 10 15
Pro Thr Phe Ser Arg Ser Pro His His Tyr Tyr Arg Ser Gly Asp Leu
20 25 30
Ser Thr Ala Thr Lys Ser Glu Thr Ser Glu Asp Ile Ser Gln Thr Ser
35 40 45
Lys Tyr Ser Pro Ile Tyr Ser Pro Asp Pro Tyr Tyr Ala Ser Glu Ser
50 55 60
Glu Tyr Trp Thr Tyr His Gly Ser Pro Lys Val Pro Arg Ala Arg Arg
65 70 75 80
Phe Ser Ser Gly Gly Glu Glu Asp Asp Phe Asp Arg Ser Met His Lys
85 90 95
Leu Gln Ser Gly Ile Gly Arg Leu Ile Leu Lys Glu Glu Met Lys Ala
100 105 110
Arg Ser Ser Ser Tyr Ala Asp Pro Trp Arg
115 120

<210> 3259
<211> 747
<212> DNA
<213> Homo sapiens

<400> 3259
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60

2458

gtgctcagcc ttcgtacagc tctgggccc cctgcagccc atcttgtgtg gcaacaaccg
120
caccattgaa cccggagcgc tgcggcgggg caacatgagc tccctgggct ttacgagcaa
180
ggagcagcgg aacctgggccc ttctcgtgca cctcatgacc agcaacccca aaatcctgta
240
cgcgcctgcg ggctctgagg tcgaccgcgt catcctcaag gccaacgaga cttttgcttt
300
tgtgggcaac gtgactcact atgcccaggt ctggctcaac atctcggcgg agatccgcag
360
cttcctggag cagggcaggg tcgagcaaca cctgcgctgg ctgcagcagt atgtagcaga
420
gctgcggctg caccgcgagg cactgaacct gtcactggat gagctgccgc cggccctgag
480
acaggacaac ttctcgtgca ccagtggcat ggccctcctg cagcagctgg ataccattga
540
caacgcggcc tgcggctgga tccagttcat gtccaagggt agcgtggaca tcttcaaggg
600
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660
cactgttttt gccagtgtga tcttcagac ccggaaggac ggctcgtccc gcctcacgtg
720
cactacaaga tccgccagaa ctccagc
747

<210> 3260

<211> 197

<212> PRT

<213> Homo sapiens

<400> 3260

Met	Ser	Ser	Leu	Gly	Phe	Thr	Ser	Lys	Glu	Gln	Arg	Asn	Leu	Gly	Leu
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Leu	Val	His	Leu	Met	Thr	Ser	Asn	Pro	Lys	Ile	Leu	Tyr	Ala	Pro	Ala
			20					25					30		
Gly	Ser	Glu	Val	Asp	Arg	Val	Ile	Leu	Lys	Ala	Asn	Glu	Thr	Phe	Ala
		35					40					45			
Phe	Val	Gly	Asn	Val	Thr	His	Tyr	Ala	Gln	Val	Trp	Leu	Asn	Ile	Ser
		50				55					60				
Ala	Glu	Ile	Arg	Ser	Phe	Leu	Glu	Gln	Gly	Arg	Leu	Gln	Gln	His	Leu
65					70				75					80	
Arg	Trp	Leu	Gln	Gln	Tyr	Val	Ala	Glu	Leu	Arg	Leu	His	Pro	Glu	Ala
			85						90					95	
Leu	Asn	Leu	Ser	Leu	Asp	Glu	Leu	Pro	Pro	Ala	Leu	Arg	Gln	Asp	Asn
			100					105					110		
Phe	Ser	Leu	Pro	Ser	Gly	Met	Ala	Leu	Leu	Gln	Gln	Leu	Asp	Thr	Ile
		115				120						125			
Asp	Asn	Ala	Ala	Cys	Gly	Trp	Ile	Gln	Phe	Met	Ser	Lys	Val	Ser	Val
		130				135					140				
Asp	Ile	Phe	Lys	Gly	Phe	Pro	Asp	Glu	Glu	Ser	Ile	Val	Asn	Tyr	Thr
145				150					155					160	
Leu	Asn	Gln	Ala	Tyr	Gln	Asp	Asn	Val	Thr	Val	Phe	Ala	Ser	Val	Ile
			165					170					175		
Phe	Gln	Thr	Arg	Lys	Asp	Gly	Ser	Ser	Arg	Leu	Thr	Cys	Thr	Thr	Arg

180 185 190
Ser Ala Arg Thr Pro
195

<210> 3261
<211> 1323
<212> DNA
<213> Homo sapiens

<400> 3261
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gcacctcatt gctttcctca cctgccatct cacacgtggc tgccctgtgt tgccctgtg
120
tgctgtgcca attgtgtttt ttgtctctgt gtacattttg gttttatttg gggttgctgt
180
tgatgatttc ctttgttccg gtgttctgtc tccctctgct ggctgtgtgg gggctgcctg
240
gcccgtgct tgccgctcc atagatcccc gttgcgcagc catctgtcat ggacgacatt
300
gaggtgtggc tcaggaccga cctgaagggt gatgatctgg aggaggggtg cacaagtga
360
gagtttgata aattccttga agaaagagcc aaagctgctg aaatggttcc cgacctcccc
420
tcgcccccca tggaggtcc tgccccagcc tcaaaccctt ctggccggaa gaagccagag
480
cggtcagagg atgcccctct cgccctgtga gcagctctgt ggtttgctc cccagatggc
540
gggtccccgc ttgcaccccg tggacaccgg gcaactggcca ctctacatc cccagctcca
600
cagggcctgc acacctgtgt ttccatggaa atgccaccgt gtctgctccc aggcctccca
660
ctagtcagga ccagcttcag ccacttcttt tctctgagtg gtgggacaac tgcagccaga
720
gactctctcc cctcccacca tgggcccctc tgcccatgtt tctcccagg aagagcgggc
780
agagtggccc agccccaggc agtgcttctt gagcagacca cccggactgt ctttctcca
840
ccgcccctg gagaaagagc acgcccggcc ccgcccgtg ctacacctg cctggctcag
900
tgaccttctc aggcattctg cctcctggg cccctctctc cctgaagggg ctttgtggca
960
tctctggaag agcagggtgt gctgcaactc tgggcctggc ctactcctt ggacttgtca
1020
ccttgtgaca tttggcttac cagcatttga gaaggctctg ctgggtctcc atgggtgggg
1080
tctctcacct tcttgacct ctctccatca ttcagctgcc agcccaggct tcacacccaa
1140
gctggctcag cagccgagcc tggcaccgag ggtccctgca ggctccctgg gcaggagag
1200
ggccaaggac aattgggagg gcagcaggca gcccgagat ggtggccatg tggcacgctg
1260
ctgagacgac actaccaata aaccaaactg ccacgcacaa aaaaaaaaaa aaaaaaaaaa
1320

aaa
1323

<210> 3262
<211> 81
<212> PRT
<213> Homo sapiens

<400> 3262
Ile Pro Val Ala Gln Pro Ser Val Met Asp Asp Ile Glu Val Trp Leu
1 5 10 15
Arg Thr Asp Leu Lys Gly Asp Asp Leu Glu Glu Gly Val Thr Ser Glu
20 25 30
Glu Phe Asp Lys Phe Leu Glu Glu Arg Ala Lys Ala Ala Glu Met Val
35 40 45
Pro Asp Leu Pro Ser Pro Pro Met Glu Ala Pro Ala Pro Ala Ser Asn
50 55 60
Pro Ser Gly Arg Lys Lys Pro Glu Arg Ser Glu Asp Ala Leu Phe Ala
65 70 75 80
Leu

<210> 3263
<211> 1128
<212> DNA
<213> Homo sapiens

<400> 3263
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cggggacgca agggccgggg ccgggggtccc ccgtcctcct ctgactccga gcccgaggcc
120
gagctggaga gagaggccaa gaaatcagcg aagaagccgc agtcctcaag cacagagccc
180
gccaggaaac ctggccagaa ggagaagaga gtgcggcccg aggagaagca acaagccaag
240
cccgtgaagg tggagcggac ccggaagcgg tccgagggct tctcgatgga caggaaggta
300
gagaagaaga aagagccctc cgtggaggag aagctgcaga agctgcacag tgagatcaag
360
tttggcctaa aggtcgacag cccggacgtg aaggggtgcc tgaatgccct agaggagctg
420
ggaaccctgc aggtgacctc tcagatcctc cagaagaaca cagacgtggt ggccaccttg
480
aagaagattc gccgttataa agcgaacaag gacgtaatgg agaaggcagc agaagtctat
540
acccggctca agtcgagggt cctcgcccca aagatcgagg cggcgagaa agtgaacaag
600
gctgggatgg agaaggagaa ggccgaggag aagctggccg gggaggagct ggccggggag
660
gaggccccc aggagaaggc ggaggacaag cccagcaccg atctctcagc cccagtgaat
720
ggcgaggcca catcacagaa gggggagagc gcagaggaca aggagcacga ggagggtcgg
780

gactcggagg aggggccaag gtgtggctcc tctgaagacc tgcacgacag cgtacgggag
840
ggccccgacc tggacaggcc tgggagcgac cggcaggagc gcgagagggc acgggggggac
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tcggaggccc tggacgagga gagctgagcc gcgggcagcc aggcccagcc cccgcccag
960
ctcaggctgc ccctctcctt ccccggtctg caggagagca gagcagagaa ctgtggggaa
1020
cgctgtgctg tttgtatttg ttcccttggg ttttttttct ctgcctaatt tctgtgattt
1080
ccaaccaaca tgaaatgact ataaatgggt tttttaatga aaaaaaaaa
1128

<210> 3264

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3264

Ser	Arg	Tyr	Arg	Arg	Ser	Ser	Gly	Asp	Glu	Leu	Arg	Glu	Asp	Asp	Glu
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Pro	Val	Lys	Lys	Arg	Gly	Arg	Lys	Gly	Arg	Gly	Arg	Gly	Pro	Pro	Ser
		20					25						30		
Ser	Ser	Asp	Ser	Glu	Pro	Glu	Ala	Glu	Leu	Glu	Arg	Glu	Ala	Lys	Lys
	35						40					45			
Ser	Ala	Lys	Lys	Pro	Gln	Ser	Ser	Ser	Thr	Glu	Pro	Ala	Arg	Lys	Pro
	50				55					60					
Gly	Gln	Lys	Glu	Lys	Arg	Val	Arg	Pro	Glu	Glu	Lys	Gln	Gln	Ala	Lys
65					70					75				80	
Pro	Val	Lys	Val	Glu	Arg	Thr	Arg	Lys	Arg	Ser	Glu	Gly	Phe	Ser	Met
				85					90					95	
Asp	Arg	Lys	Val	Glu	Lys	Lys	Lys	Glu	Pro	Ser	Val	Glu	Glu	Lys	Leu
			100					105					110		
Gln	Lys	Leu	His	Ser	Glu	Ile	Lys	Phe	Ala	Leu	Lys	Val	Asp	Ser	Pro
	115						120						125		
Asp	Val	Lys	Gly	Cys	Leu	Asn	Ala	Leu	Glu	Glu	Leu	Gly	Thr	Leu	Gln
	130				135						140				
Val	Thr	Ser	Gln	Ile	Leu	Gln	Lys	Asn	Thr	Asp	Val	Val	Ala	Thr	Leu
145					150					155				160	
Lys	Lys	Ile	Arg	Arg	Tyr	Lys	Ala	Asn	Lys	Asp	Val	Met	Glu	Lys	Ala
			165					170					175		
Ala	Glu	Val	Tyr	Thr	Arg	Leu	Lys	Ser	Arg	Val	Leu	Gly	Pro	Lys	Ile
			180					185					190		
Glu	Ala	Val	Gln	Lys	Val	Asn	Lys	Ala	Gly	Met	Glu	Lys	Glu	Lys	Ala
	195					200							205		
Glu	Glu	Lys	Leu	Ala	Gly	Glu	Glu	Leu	Ala	Gly	Glu	Glu	Ala	Pro	Gln
	210				215					220					
Glu	Lys	Ala	Glu	Asp	Lys	Pro	Ser	Thr	Asp	Leu	Ser	Ala	Pro	Val	Asn
225				230					235					240	
Gly	Glu	Ala	Thr	Ser	Gln	Lys	Gly	Glu	Ser	Ala	Glu	Asp	Lys	Glu	His
			245					250					255		
Glu	Glu	Gly	Arg	Asp	Ser	Glu	Glu	Gly	Pro	Arg	Cys	Gly	Ser	Ser	Glu
			260					265					270		
Asp	Leu	His	Asp	Ser	Val	Arg	Glu	Gly	Pro	Asp	Leu	Asp	Arg	Pro	Gly

2462

275 280 285
Ser Asp Arg Gln Glu Arg Glu Arg Ala Arg Gly Asp Ser Glu Ala Leu
290 295 300
Asp Glu Glu Ser
305

<210> 3265
<211> 524
<212> DNA
<213> Homo sapiens

<400> 3265
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ctttttcgtg gttttcaaaa tgtttcatt gagggcgat tactttata atcaacaaaa
120
gagaaagtat aacttcatt tagaaattct cacctaaggc atttgaaaaa taatccaaaa
180
ggtacattat tggtgatttt tcttccttct agaaaggatc ttgttcgagt agaagccaca
240
gtcattgaaa agacagaatc atggccaaga atcattatga gattcaggaa aaggaaaaac
300
ttcaagaaga aaagaagtaa gttagagaaa gtaccgctgg gccctgttgc acggtgctgg
360
ttgcccaggc gcatgcggac ggaggggtgtg gggcacgtgg gtctcgggac aggaagccca
420
ggcaggtctc aacctggctg ccactgccc cttgccacce tcacctaaga gggagcacc
480
agaggggtcca gcctcgtcc ccttctctc cacgctccac gcgt
524

<210> 3266
<211> 82
<212> PRT
<213> Homo sapiens

<400> 3266
Met Arg Phe Arg Lys Arg Lys Asn Phe Lys Lys Lys Arg Ser Lys Leu
1 5 10 15
Glu Lys Val Pro Leu Gly Pro Val Ala Arg Cys Trp Leu Pro Arg Arg
20 25 30
Met Arg Thr Glu Gly Val Gly His Val Gly Leu Gly Thr Gly Ser Pro
35 40 45
Gly Arg Ser Gln Pro Gly Cys His Cys Pro Leu Ala Thr Leu Ile Leu
50 55 60
Glu Gly Ala Pro Arg Gly Ser Ser Leu Ala Pro Leu Leu Leu His Ala
65 70 75 80
Pro Arg

<210> 3267
<211> 393
<212> DNA
<213> Homo sapiens

<400> 3267
gtcgaatatg catgcagagt acaggggttta gaacatgaca tggaagagat caatgctcga
60
tggaatacat tgaataaaaa ggtcgcacaa agaattgcac agctacagga agctttgttg
120
cattgtggga agtttcaaga tgccttggag ccattgctca gctggttggc agataccgag
180
gagctcatag ccaatcagaa acctccatct gctgagtata aagtggtgaa agcacagatc
240
caagaacaga agttgctcca ggggtccta gatgatcgaa aggccacagt agacatgctt
300
caagcagaag gaggcagaat agcccagtca gcagagctgg ctgatagaga gaaaatcact
360
ggacagctgg agagtcttga aagtagatgg act
393

<210> 3268
<211> 131
<212> PRT
<213> Homo sapiens

<400> 3268
Val Glu Tyr Ala Cys Arg Val Gln Gly Leu Glu His Asp Met Glu Glu
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Ile Asn Ala Arg Trp Asn Thr Leu Asn Lys Lys Val Ala Gln Arg Ile
20 25 30
Ala Gln Leu Gln Glu Ala Leu Leu His Cys Gly Lys Phe Gln Asp Ala
35 40 45
Leu Glu Pro Leu Leu Ser Trp Leu Ala Asp Thr Glu Glu Leu Ile Ala
50 55 60
Asn Gln Lys Pro Pro Ser Ala Glu Tyr Lys Val Val Lys Ala Gln Ile
65 70 75 80
Gln Glu Gln Lys Leu Leu Gln Arg Leu Leu Asp Asp Arg Lys Ala Thr
85 90 95
Val Asp Met Leu Gln Ala Glu Gly Gly Arg Ile Ala Gln Ser Ala Glu
100 105 110
Leu Ala Asp Arg Glu Lys Ile Thr Gly Gln Leu Glu Ser Leu Glu Ser
115 120 125
Arg Trp Thr
130

<210> 3269
<211> 1423
<212> DNA
<213> Homo sapiens

<400> 3269
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tttgaagctg taactttatg agcgattatt tactaccttt gagaaatgtg ttttagtata
120
aaatatagga tgtggaagcg aaaaaatata tgggtagcaa gtgaggtgta ctcaaaaata
180

agcaaaagtc acgtgggtct gattttatac cctcgctgga aagcttggtc tcagacacac
240
tggtactgca agtgtgtgtg agggggaaac tctcacacac tttgcagttg aggacagggc
300
tagactttga ggtggacctt ggctcccagg gctgtgtact ccagcccgt gtttctcttt
360
tgctcagact gaacaagtgg aacgaaatta cattaagaa aagaaggcag cagtgaagaa
420
atctgaagac aagaagggtg agctgaaaga gaacctgatt gctgagctag aagaaaagaa
480
gaaaatgatt gaaaacgaaa tgctgacaat ggaactgaat ggagattcta tggaggtgaa
540
acctatcatg accagaaagt tgcggaggcg accaaatgat cccgtcccca tcccagacaa
600
gaggaggaaa cctgctccag ccagctaaa ctatttgta acagatgaac agatcatgga
660
ggatctgaga acattaaata agcttaagtc acccaagaga ccagcatctc catcctctcc
720
tgagcacttg cctgcaacac ccgcggaatc tccagcacag agatttgagg cgcgataga
780
agatggcaaa ctgtattatg acaaaagatg gtaccacaag agccaggcca tctatctgga
840
gtcaaaggac aaccagaaac tgagctgcgt gatcagttct gtaggagcca atgagatctg
900
ggtgaggaag acaagtgaca gcaccaagat gaggatctac ctgggtcagc ttcagcgcg
960
gctcttcgtg atccgccggc gctcagctgc ttgactttct acagtgtctt tctcttgacc
1020
ctttttctgg agtgggtttt atttttgttt tgtttcgttt tctccttaat agaaaaatgt
1080
taacttactg ggaatagcta ctcagccttg gaaatggaga gcaactgcagt gaattcttta
1140
gggcactttt gtggccggat gcttccaact ttgtcagttt tttctgcctc aacttcttcc
1200
agacatcagt caccatgaga ctgttttact ttcaggcgta ttggggggtt tgatttactt
1260
tccttttatt tctttatttt ttgcttatac ttgtttttga aaacctctc tgagtttgaa
1320
gggacagcta tttttattga ttatctttta gtctctctac catggagaag agcaggaagg
1380
gatacactct ccagtgcatt ttcattgttt gaatcggatt agt
1423

<210> 3270

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3270

Met	Ile	Glu	Asn	Glu	Met	Leu	Thr	Met	Glu	Leu	Asn	Gly	Asp	Ser	Met
1				5					10					15	
Glu	Val	Lys	Pro	Ile	Met	Thr	Arg	Lys	Leu	Arg	Arg	Arg	Pro	Asn	Asp
			20						25				30		
Pro	Val	Pro	Ile	Pro	Asp	Lys	Arg	Arg	Lys	Pro	Ala	Pro	Ala	Gln	Leu

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      35      40      45
Asn Tyr Leu Leu Thr Asp Glu Gln Ile Met Glu Asp Leu Arg Thr Leu
      50      55      60
Asn Lys Leu Lys Ser Pro Lys Arg Pro Ala Ser Pro Ser Ser Pro Glu
65      70      75      80
His Leu Pro Ala Thr Pro Ala Glu Ser Pro Ala Gln Arg Phe Glu Ala
      85      90      95
Arg Ile Glu Asp Gly Lys Leu Tyr Tyr Asp Lys Arg Trp Tyr His Lys
      100      105      110
Ser Gln Ala Ile Tyr Leu Glu Ser Lys Asp Asn Gln Lys Leu Ser Cys
      115      120      125
Val Ile Ser Ser Val Gly Ala Asn Glu Ile Trp Val Arg Lys Thr Ser
      130      135      140
Asp Ser Thr Lys Met Arg Ile Tyr Leu Gly Gln Leu Gln Arg Gly Leu
145      150      155      160
Phe Val Ile Arg Arg Arg Ser Ala Ala
      165

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<210> 3271
 <211> 464
 <212> DNA
 <213> Homo sapiens

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<400> 3271
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gaaggcactg gggatacagc cgagcacaag atggacagag atccctggcc cctcggagca
120
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180
atgagaaggg ccccggcagc aagagatcca atgatggtgg ccgccaggat cccagcgttg
240
gtgggcaggt gtgtactggg cagctcctta ttcttttcag ctacctggac ctcagtcttg
300
gccttcatag tccattcaga gttgatggtta atggctactt ggtaggtgcc actgtctgta
360
ggctgggcgc ggcgcagcag catggaacca ttggggaagc ccacgatgtc tcgctgtccc
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464

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<210> 3272
 <211> 140
 <212> PRT
 <213> Homo sapiens

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<400> 3272
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Arg Arg Ala Gln Pro Thr Asp Ser Gly Thr Tyr Gln Val Ala Ile Thr
20      25      30
Ile Asn Ser Glu Trp Thr Met Lys Ala Lys Thr Glu Val Gln Val Ala
35      40      45
Glu Lys Asn Lys Glu Leu Pro Ser Thr His Leu Pro Thr Asn Ala Gly

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50 55 60
Ile Leu Ala Ala Thr Ile Ile Gly Ser Leu Ala Ala Gly Ala Leu Leu
65 70 75 80
Ile Ser Cys Ile Ala Tyr Leu Leu Val Thr Arg Asn Trp Arg Gly Gln
85 90 95
Ser His Arg Leu Pro Ala Pro Arg Gly Gln Gly Ser Leu Ser Ile Leu
100 105 110
Cys Ser Ala Val Ser Pro Val Pro Ser Val Thr Pro Ser Thr Trp Met
115 120 125
Ala Thr Thr Glu Lys Pro Glu Leu Gly Pro Ala His
130 135 140

<210> 3273
<211> 387
<212> DNA
<213> Homo sapiens

<400> 3273
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120
aagtgcagaa ggcctgaaat aaccaactgg gtccgtctca cccgtgaaat aaaacacaag
180
aatattgtaa cttttcatga atggtatgaa acaagcaacc acctctggct agtgggtggaa
240
ctccgcacag gtggttcctt aaaaacagtt attgctcaag atgaaaacct cccagaagat
300
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<210> 3274
<211> 129
<212> PRT
<213> Homo sapiens

<400> 3274
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Gly Ser Lys Thr Val Val Tyr Lys Gly Arg Arg Lys Gly Thr Ile Asn
20 25 30
Phe Val Ala Ile Leu Cys Thr Asp Lys Cys Arg Arg Pro Glu Ile Thr
35 40 45
Asn Trp Val Arg Leu Thr Arg Glu Ile Lys His Lys Asn Ile Val Thr
50 55 60
Phe His Glu Trp Tyr Glu Thr Ser Asn His Leu Trp Leu Val Val Glu
65 70 75 80
Leu Arg Thr Gly Gly Ser Leu Lys Thr Val Ile Ala Gln Asp Glu Asn
85 90 95
Leu Pro Glu Asp Val Val Arg Glu Phe Gly Ile Asp Leu Ile Ser Gly
100 105 110
Leu His His Leu His Lys Leu Gly Ile Leu Phe Val Thr Phe Leu Leu

115 120 125
Gly

<210> 3275
<211> 1266
<212> DNA
<213> Homo sapiens

<400> 3275
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120
ttttctttta tagagacatg aataacagat aactgaagt ataaacaaaa attggcctga
180
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240
tgccgcaagc aggctggtg tgccatcgga agactgtgtg aaaaatgtga tggcaagtgt
300
gtgatttgtg actcctatgt gcgtccctgc actctggtgc gcatatgtga tgagtgtaac
360
tatggatctt accaggggag ctgtgtgatc tgtggaggac ctggggtctc tgatgcctat
420
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480
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540
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600
tgcctactac taccagcaga aaggagcag agcccagagc atcaccagga gtgcctgcta
660
gtgtactggc agcttgccac cccctctctt cccttcaccc agacacgtgg tagggatgga
720
aaaggattct tcacagagca ctctggcaca ccatatcgga gaaaaattga tagattagtt
780
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900
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960
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1080
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1140
agtctcatat tattttcctt ttgagaaatt ggaaactctt tctgttgcta ttatattaat
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1260
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1266

<210> 3276
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 3276
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 20 25 30
 Cys Asp Ser Tyr Val Arg Pro Cys Thr Leu Val Arg Ile Cys Asp Glu
 35 40 45
 Cys Asn Tyr Gly Ser Tyr Gln Gly Arg Cys Val Ile Cys Gly Gly Pro
 50 55 60
 Gly Val Ser Asp Ala Tyr Tyr Cys Lys Glu Cys Thr Ile Gln Glu Lys
 65 70 75 80
 Asp Arg Asp Gly Cys Pro Lys Ile Val Asn Leu Gly Ser Ser Lys Thr
 85 90 95
 Asp Leu Phe Tyr Glu Arg Lys Lys Tyr Gly Phe Lys Lys Arg
 100 105 110

<210> 3277
 <211> 1435
 <212> DNA
 <213> Homo sapiens

<400> 3277
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 120
 cagacttccg tctccttaaa atgttcatgc gtaagtgcgt ggcagaagcg gctcaagcgc
 180
 actcgtgcgt cattgctgtc ayggccgagg gagcgggtgca aggccgccgc gtgacgtcag
 240
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 300
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 420
 cagatggcgg ccaacgtggg tgatcaacgt agcacagatt ggtcttctca gtacagcatg
 480
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 aagtccagca gcaatgggccc tgtggccagt gcaagtacgt gtcccaggca gaagcctcag
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 ctttgagca gcagcagtac taccagtggg accagcagta caactatgcc taccctaca
 720
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 780

ccggctccta tggctagcca caccacagca gccatccgca ccccaacacc aagggactct
840
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900
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1080
cagctgtgga accgcatgaa acccgcccct gggactggag gttcaagttc aacatccaga
1140
agcgaccctt tgctgttacc acccagagct ttggctccaa cgcagagggc cagcacagt
1200
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1320
gcttcaccgc ctgtgagtcg gaggaggaca aggaccgcac ggaaaagctg ctcaaggagg
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1435

<210> 3278

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3278

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Tyr	Ser	Met	Val	Ala	Gly	Ala	Gly	Arg	Glu	Asn	Gly	Met	Glu	Thr	Pro
			20					25					30		
Met	His	Glu	Asn	Pro	Glu	Trp	Glu	Lys	Ala	Arg	Gln	Ala	Leu	Ala	Ser
		35				40					45				
Ile	Ser	Lys	Ser	Gly	Ala	Ala	Gly	Gly	Ser	Ala	Lys	Ser	Ser	Ser	Asn
	50				55					60					
Gly	Pro	Val	Ala	Ser	Ala	Ser	Thr	Cys	Pro	Arg	Gln	Lys	Pro	Gln	Leu
65					70				75					80	
Cys	Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Thr	Ser	Ser	Thr	Thr	Met	Pro
			85				90							95	
Thr	Pro	Thr	Ala	Thr	Thr	Ile	Pro								
			100												

<210> 3279

<211> 1130

<212> DNA

<213> Homo sapiens

<400> 3279

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120

cctgagccag aaccaggcac catggtggag aagggatcag atagctcctc agagaagggc
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ggggtgcctg ggacccccag caccagagc ctaggcagcc ggaacttcac ccgcaacagc
240
aagaagatgc agagctggta cagtatgctg agccccactt ataagcagcg taatgaggac
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540
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660
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720
cccttgagc tgaacggctc ggggaccccc aaggaagtgg gagatgtgat cgccctgagc
780
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840
cgtggccatg tcacgcccac cctttcccca gccagcagc acgcagacca tggggcagag
900
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960
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1020
cccttgatc tgctgcccag tgaggagcta ttgacagaca caagtaactc ctcttcaccc
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1130

<210> 3280

<211> 376

<212> PRT

<213> Homo sapiens

<400> 3280

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Gly	Arg	Ser	Thr	Pro	Ser	Ser	Ser	Pro	Ser	Leu	Arg	Lys	Arg	Leu	Gln
			20					25					30		
Leu	Leu	Pro	Pro	Ser	Arg	Pro	Pro	Pro	Glu	Pro	Glu	Pro	Gly	Thr	Met
			35					40					45		
Val	Glu	Lys	Gly	Ser	Asp	Ser	Ser	Ser	Glu	Lys	Gly	Gly	Val	Pro	Gly
			50					55					60		
Thr	Pro	Ser	Thr	Gln	Ser	Leu	Gly	Ser	Arg	Asn	Phe	Ile	Arg	Asn	Ser
65					70					75				80	
Lys	Lys	Met	Gln	Ser	Trp	Tyr	Ser	Met	Leu	Ser	Pro	Thr	Tyr	Lys	Gln
			85						90					95	
Arg	Asn	Glu	Asp	Phe	Arg	Lys	Leu	Phe	Ser	Lys	Leu	Pro	Glu	Ala	Glu

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      100      105      110
Arg Leu Ile Val Asp Tyr Ser Cys Ala Leu Gln Arg Glu Ile Leu Leu
      115      120      125
Gln Gly Arg Leu Tyr Leu Ser Glu Asn Trp Ile Cys Phe Tyr Ser Asn
      130      135      140
Ile Phe Arg Trp Glu Thr Thr Ile Ser Ile Gln Leu Lys Glu Val Thr
      145      150      155      160
Cys Leu Lys Lys Glu Lys Thr Ala Lys Leu Ile Pro Asn Ala Ile Gln
      165      170      175
Ile Cys Thr Glu Ser Glu Lys His Phe Phe Thr Ser Phe Gly Ala Arg
      180      185      190
Asp Arg Cys Phe Leu Leu Ile Phe Arg Leu Trp Gln Asn Ala Leu Leu
      195      200      205
Glu Lys Thr Leu Ser Pro Arg Glu Leu Trp His Leu Val His Gln Cys
      210      215      220
Tyr Gly Ser Glu Leu Gly Leu Thr Ser Glu Asp Glu Asp Tyr Val Ser
      225      230      235      240
Pro Leu Gln Leu Asn Gly Leu Gly Thr Pro Lys Glu Val Gly Asp Val
      245      250      255
Ile Ala Leu Ser Asp Ile Thr Ser Ser Gly Ala Ala Asp Arg Ser Gln
      260      265      270
Glu Pro Ser Pro Val Gly Ser Arg Arg Gly His Val Thr Pro Asn Leu
      275      280      285
Ser Arg Ala Ser Ser Asp Ala Asp His Gly Ala Glu Glu Asp Lys Glu
      290      295      300
Glu Gln Val Asp Ser Gln Pro Asp Ala Ser Ser Ser Gln Thr Val Thr
      305      310      315      320
Pro Val Ala Glu Pro Pro Ser Thr Glu Pro Thr Gln Pro Asp Gly Pro
      325      330      335
Thr Thr Leu Gly Pro Leu Asp Leu Leu Pro Ser Glu Glu Leu Leu Thr
      340      345      350
Asp Thr Ser Asn Ser Ser Ser Ser Thr Gly Glu Glu Ala Asp Leu Ala
      355      360      365
Ala Leu Leu Pro Asp Leu Ser Gly
      370      375

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<210> 3281
 <211> 842
 <212> DNA
 <213> Homo sapiens

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<400> 3281
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120
ggcaaggagg tagagccagc ggctgaggac ctgtcagggc cagtcccagc tctgcagctt
180
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240
gggtcctgac acggatctca tgggattgct ctgaggccca ggcagtccca ggctcaacca
300
ctggttcaca aagtgtgttg tttccaggaa gaacagatgg gggcgctga gggcaaaggg
360

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cctgagtgtg ggtcgaggat atgccggctg ctgctcagg ggtcgggttt tcatcttgtg
420
tgtcttgaca ggtgtgaca cttggcacca cactgttccc tgccttca tggatgtggc
480
ccacatgatg ttcttttct cttgcaaaag aagttgctgg aaggccact gtccagcagc
540
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720
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840
tc
842

<210> 3282
<211> 146
<212> PRT
<213> Homo sapiens

<400> 3282
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Pro Asp Thr Ser Leu Gln Val Leu Leu Val Ala Gly Pro Thr Lys Ala
20 25 30
Pro Trp Pro Arg Gln Pro Gly Gly Cys Trp Thr Val Gly Leu Pro Ala
35 40 45
Thr Ser Phe Ala Arg Gly Lys Glu His His Val Gly His Ile His Glu
50 55 60
Gly Thr Gly Asn Ser Val Val Pro Ser Val Thr Pro Cys Gln Asp Thr
65 70 75 80
Gln Asp Glu Asn Pro Ala Pro Glu Arg Ala Ala Gly Ile Ser Ser Thr
85 90 95
His Thr Gln Ala Leu Cys Pro Gln Ala Pro Pro Ser Val Leu Pro Gly
100 105 110
Asn Asn Thr Leu Cys Glu Pro Val Val Glu Pro Gly Thr Ala Trp Ala
115 120 125
Ser Glu Gln Ser His Glu Ile Arg Val Arg Thr Pro Ser Cys Arg Gly
130 135 140
Arg Asp
145

<210> 3283
<211> 3268
<212> DNA
<213> Homo sapiens

<400> 3283
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gcggagaacc taccgccagt cctcatggag cacaaggcca ccaccatcca gaagcacgtg
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240
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2760
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<210> 3284
<211> 1012
<212> PRT
<213> Homo sapiens

<400> 3284
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35 40 45
Met Glu His Lys Ala Thr Thr Ile Gln Lys His Val Arg Gly Trp Met
50 55 60
Ala Arg Arg His Phe Gln Arg Leu Arg Asp Ala Ala Ile Val Ile Gln
65 70 75 80
Cys Ala Phe Arg Met Leu Lys Ala Arg Arg Glu Leu Lys Ala Leu Arg
85 90 95
Ile Glu Ala Arg Ser Ala Glu His Leu Lys Arg Leu Asn Val Gly Met
100 105 110
Glu Asn Lys Val Val Gln Leu Gln Arg Lys Ile Asp Glu Gln Asn Lys
115 120 125
Glu Phe Lys Thr Leu Ser Glu Gln Leu Ser Val Thr Thr Ser Thr Tyr
130 135 140
Thr Met Glu Val Glu Arg Leu Lys Lys Glu Leu Val His Tyr Gln Gln
145 150 155 160
Ser Pro Gly Glu Asp Thr Ser Leu Arg Leu Gln Glu Glu Val Glu Ser
165 170 175
Leu Arg Thr Glu Leu Gln Arg Ala His Ser Glu Arg Lys Ile Leu Glu
180 185 190
Asp Ala His Ser Arg Glu Lys Asp Glu Leu Arg Lys Arg Val Ala Asp
195 200 205
Leu Glu Gln Glu Asn Ala Leu Leu Lys Asp Glu Lys Glu Gln Leu Asn
210 215 220
Asn Gln Ile Leu Cys Gln Ser Lys Asp Glu Phe Ala Gln Asn Ser Val
225 230 235 240
Lys Glu Asn Leu Leu Met Lys Lys Glu Leu Glu Glu Arg Ser Arg
245 250 255
Tyr Gln Asn Leu Val Lys Glu Tyr Ser Gln Leu Glu Gln Arg Tyr Asp
260 265 270
Asn Leu Arg Asp Glu Met Thr Ile Ile Lys Gln Thr Pro Gly His Arg
275 280 285
Arg Asn Pro Ser Asn Gln Ser Ser Leu Glu Ser Asp Ser Asn Tyr Pro
290 295 300
Ser Ile Ser Thr Ser Glu Ile Gly Asp Thr Glu Asp Ala Leu Gln Gln
305 310 315 320
Val Glu Glu Ile Gly Leu Glu Lys Ala Ala Met Asp Met Thr Val Phe
325 330 335
Leu Lys Leu Gln Lys Arg Val Arg Glu Leu Glu Gln Glu Arg Lys Lys
340 345 350
Leu Gln Val Gln Leu Glu Lys Arg Glu Gln Gln Asp Ser Lys Lys Val
355 360 365
Gln Ala Glu Pro Pro Gln Thr Asp Ile Asp Leu Asp Pro Asn Ala Asp

370 375 380
Leu Ala Tyr Asn Ser Leu Lys Arg Gln Glu Leu Glu Ser Glu Asn Lys
385 390 395 400
Lys Leu Lys Asn Asp Leu Asn Glu Leu Arg Lys Ala Val Ala Asp Gln
405 410 415
Ala Thr Gln Asn Asn Ser Ser His Gly Ser Pro Asp Ser Tyr Ser Leu
420 425 430
Leu Leu Asn Gln Leu Lys Leu Ala His Glu Glu Leu Glu Val Arg Lys
435 440 445
Glu Glu Val Leu Ile Leu Arg Thr Gln Ile Val Ser Ala Asp Gln Arg
450 455 460
Arg Leu Ala Gly Arg Asn Ala Glu Pro Asn Ile Asn Ala Arg Ser Ser
465 470 475 480
Trp Pro Asn Ser Glu Arg His Val Asp Gln Glu Asp Ala Ile Glu Ala
485 490 495
Tyr His Gly Val Cys Gln Thr Asn Arg Leu Leu Glu Ala Gln Leu Gln
500 505 510
Ala Gln Ser Leu Glu His Glu Glu Glu Val Glu His Leu Lys Ala Gln
515 520 525
Leu Glu Ala Leu Lys Glu Glu Met Asp Lys Gln Gln Gln Thr Phe Cys
530 535 540
Gln Thr Leu Leu Leu Ser Pro Glu Ala Gln Val Glu Phe Gly Val Gln
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Gln Glu Ile Ser Arg Leu Thr Asn Glu Asn Leu Asp Leu Lys Glu Leu
565 570 575
Val Glu Lys Leu Glu Lys Asn Glu Arg Lys Leu Lys Lys Gln Leu Lys
580 585 590
Ile Tyr Met Lys Lys Ala Gln Asp Leu Glu Ala Ala Gln Ala Leu Ala
595 600 605
Gln Ser Glu Arg Lys Arg His Glu Leu Asn Arg Gln Val Thr Val Gln
610 615 620
Arg Lys Glu Lys Asp Phe Gln Gly Met Leu Glu Tyr His Lys Glu Asp
625 630 635 640
Glu Ala Leu Leu Ile Arg Asn Leu Val Thr Asp Leu Lys Pro Gln Met
645 650 655
Leu Ser Gly Thr Val Pro Cys Leu Pro Ala Tyr Ile Leu Tyr Met Cys
660 665 670
Ile Arg His Ala Asp Tyr Thr Asn Asp Asp Leu Lys Val His Ser Leu
675 680 685
Leu Thr Ser Thr Ile Asn Gly Ile Lys Lys Val Leu Lys Lys His Asn
690 695 700
Asp Asp Phe Glu Met Thr Ser Phe Trp Leu Ser Asn Thr Cys Arg Leu
705 710 715 720
Leu His Cys Leu Lys Gln Tyr Ser Gly Asp Glu Gly Phe Met Thr Gln
725 730 735
Asn Thr Ala Lys Gln Asn Glu His Cys Leu Lys Asn Phe Asp Leu Thr
740 745 750
Glu Tyr Arg Gln Val Leu Ser Asp Leu Ser Ile Gln Ile Tyr Gln Gln
755 760 765
Leu Ile Lys Ile Ala Glu Gly Val Leu Gln Pro Met Ile Val Ser Ala
770 775 780
Met Leu Glu Asn Glu Ser Ile Gln Gly Leu Ser Gly Val Lys Pro Thr
785 790 795 800
Gly Tyr Arg Lys Arg Ser Ser Ser Met Ala Asp Gly Asp Asn Ser Tyr

805 810 815
 Cys Leu Glu Ala Ile Ile Arg Gln Met Asn Ala Phe His Thr Val Met
 820 825 830
 Cys Asp Gln Gly Leu Asp Pro Glu Ile Ile Leu Gln Val Phe Lys Gln
 835 840 845
 Leu Phe Tyr Met Ile Asn Ala Val Thr Leu Asn Asn Leu Leu Leu Arg
 850 855 860
 Lys Asp Val Cys Ser Trp Ser Thr Gly Met Gln Leu Arg Tyr Asn Ile
 865 870 875 880
 Ser Gln Leu Glu Glu Trp Leu Arg Gly Arg Asn Leu His Gln Ser Gly
 885 890 895
 Ala Val Gln Thr Met Glu Pro Leu Ile Gln Ala Ala Gln Leu Leu Gln
 900 905 910
 Leu Lys Lys Lys Thr Gln Glu Asp Ala Glu Ala Ile Cys Ser Leu Cys
 915 920 925
 Thr Ser Leu Ser Thr Gln Gln Ile Val Lys Ile Leu Asn Leu Tyr Thr
 930 935 940
 Pro Leu Asn Glu Phe Glu Glu Arg Val Thr Val Ala Phe Ile Arg Thr
 945 950 955 960
 Ile Gln Ala Gln Leu Gln Glu Arg Asn Asp Pro Gln Gln Leu Leu Leu
 965 970 975
 Asp Ala Lys His Met Phe Pro Val Leu Phe Pro Phe Asn Pro Ser Ser
 980 985 990
 Leu Thr Met Asp Ser Ile His Ile Pro Ala Cys Leu Asn Leu Glu Phe
 995 1000 1005
 Leu Asn Glu Val
 1010

<210> 3285

<211> 1518

<212> DNA

<213> Homo sapiens

<400> 3285

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 120
 ggtttcacca ctgcctcctt tggcaacttg agtggtggtg ttcccaccga gtttatggct
 180
 gcaaagatag gtcttttctc gtatttatgt ataaacaggt accagttttg attttattta
 240
 atcatttcat acattaacat acatgacaca tcaaaatgag aaatgcacag ttaaacggtt
 300
 caacagctgg cettacttca aaagaacact atattcatat taaacattta cagtcttttc
 360
 atctaacttt acacatgtcc taaatcattt tccagcactt ctacataga agtctagttt
 420
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 480
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 540
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tgaaccagca ctaaaggctg taggatgtga ctacatcaca gttccagaag gaaggggacc
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atggccaaga gaagccctaa atgacagaag ctcattaaaa ccaagtcccc caaacctcct
720
gaaacatcgt tagcaaggag ctactgcttt cctttcttaa acatgttttg ggcattgacca
780
cactctggaa gtggtgaact gttacacatt tgggtgtgtgt gtacataaca tcaaaaacta
840
ctgtgtgaaa cttgagaatg tctgattaaa gatttcaatg tatatctaaa aactaactca
900
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960
ctttacaccc catcatagca cattatttgt gcacaactag tgaggctctgt gcggctcacc
1020
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1080
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1140
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1260
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1320
tcacttgctc cagtgcctc ctatgttcag ctgccaggac cgattccata cagtgttgt
1380
agggttgagg ctgaggagc ccctttgctc tctgtccatt ttgatttget ttttccactg
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1500
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1518

<210> 3286

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3286

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Lys	Asn	Leu	Arg	Tyr	Glu	Ala	Ala	Thr	Ser	Asp	Thr	Tyr	Arg	Lys	Gly
			20					25					30		
Lys	Asn	Asn	Asp	Asn	Thr	Arg	Pro	Ala	Pro	Pro	Pro	Lys	Ser	Cys	Cys
		35					40					45			
Cys	Glu	Leu	Arg	Leu	Gln	Lys	Arg	Thr	His	Thr	Val	Ala	Asp	Lys	Thr
	50					55				60					
Gln	Ala	Arg	Arg	Met	Phe	Glu	Ser	Gln	Ser	Ala	Leu	Ser	Leu	Val	Pro
65				70				75						80	
Val	Thr	Ser	Tyr	Val	Gln	Leu	Pro	Gly	Pro	Ile	Pro	Tyr	Ser	Asp	Cys
			85					90					95		
Arg	Leu	Arg	Thr	Glu	Asp	Ala	Pro	Leu	Leu	Ser	Leu	His	Phe	Asp	Leu
			100					105					110		
Leu	Phe	Pro	Leu	Lys	Thr	Arg	Arg	Pro	Ala	Phe	Pro	Lys	Thr	Ala	Trp

115 120 125
Pro Trp Leu Cys Thr Leu Phe Thr Thr Asp Gln Asn Ser Ile
130 135 140

<210> 3287
<211> 921
<212> DNA
<213> Homo sapiens

<400> 3287
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gagcgcgcgg cttggcggag tagggggcac ggccagcgca gtcagagctg gcgccctcct
120
gcgtaagccc aatccgggaa actcgttgcc cctctcctgg gaaaggaacg tccctcccca
180
gggttgcgag tgactcgggc accatcaccc tgtgctgtaa agacctgcga gtgctgcagc
240
tggaaataga gggcgcggaa gcgacgctgg gcatcgcccc ctccatcgag gtgtgccgag
300
ggagctcccc agccctttaa gctctccctg tctcgcgtag aggggaataa aaaggtgctt
360
ctgttcaaag aggcctccga gccgcagcta aatggcaggg ggatgcaggg tggctccggg
420
tacttgaga ggccgaagct gaagctacag gactgagggg ctggaaaggg cgcgggagcag
480
acaattccga ccctccccag agccctgac ttccttctcc ggacgctgtc ctccctggaa
540
tcagtcacga cctccttccc tttattctac cgtcccaagg gcctgagatt gggcgactcc
600
tggcacttcc tcccgcccga actctactgc aagagagtag ctgcggaagt gggcgcggtc
660
gtagggggccc gggaaggtgg aagcgccggg cctggaagag gcgcggggac agggcactcc
720
ctgggtgccc tagacctggc ctctctcttc cctgcgctgc agaccaacgc ggccggaaaa
780
aggctggagg gggcttggca gccaaagctaa ttcgggagaa tttctatgat tatgattttt
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900
aatctattct gagaactctt c
921

<210> 3288
<211> 148
<212> PRT
<213> Homo sapiens

<400> 3288
Met Thr Asp Ser Arg Glu Asp Ser Val Arg Arg Arg Lys Ser Gly Ala
1 5 10 15
Leu Gly Arg Val Gly Ile Val Ser Pro Ala Pro Phe Pro Ala Pro Gln
20 25 30
Ser Cys Ser Phe Ser Phe Gly Leu Ser Lys Tyr Pro Gly Pro Pro Cys

```

      35      40      45
Ile Pro Leu Pro Phe Ser Cys Gly Cys Gly Ala Ser Leu Asn Arg Ser
      50      55      60
Thr Phe Leu Phe Pro Ser Thr Arg Asp Arg Glu Ser Leu Lys Gly Ser
      65      70      75      80
Gly Ala Pro Ser Ala His Leu Asp Gly Ala Gly Asp Ala Gln Arg Arg
      85      90      95
Phe Arg Ala Leu Tyr Phe Gln Leu Gln His Ser Gln Val Phe Thr Ala
      100      105      110
Gln Gly Asp Gly Ala Arg Val Thr Arg Asn Pro Gly Glu Gly Arg Ser
      115      120      125
Phe Pro Arg Arg Gly Ala Thr Ser Phe Pro Asp Trp Ala Tyr Ala Gly
      130      135      140
Gly Arg Gln Leu
145

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<210> 3289
 <211> 554
 <212> DNA
 <213> Homo sapiens

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<400> 3289
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cacagcatgg actcttccct gtgtcccggt cctgccttcg cctcctccca gctcttctct
120
cccagcctcc tagcccaata tcagggccgg aggcactgga gaacttccgg ctaaggcagg
180
cctccctccc cattcacaga gccctgccag ggtggctggc aatggtgaag tccagggcag
240
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300
gaccaggcat ccacgtcggg cagcacatgc taccagtcc acagaagagg aaacagaggc
360
tccgagagga agggactgtg tccagggcgg gaccaggcc cttctgcact gggatcaatga
420
gccaaacaca tcaccccagc ccttggggag caggagccgg gccttgagg gtgaggagct
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540
ataagctgca attg
554

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<210> 3290
 <211> 129
 <212> PRT
 <213> Homo sapiens

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<400> 3290
Met Ile Pro Gly Cys Leu Pro Trp Ser Phe Ala Phe Pro Ser Ser Ser
1      5      10      15
Pro Cys Lys Ala Arg Leu Leu Leu Pro Lys Gly Trp Gly Asp Val Leu
20      25      30
Gly Ser Leu Thr Gln Cys Arg Arg Ala Trp Val Pro Pro Trp Thr Gln

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35 40 45
Ser Leu Pro Leu Gly Ala Ser Val Ser Ser Ser Val Asp Trp Val Ala
50 55 60
Cys Ala Ala Arg Arg Gly Cys Leu Val Ser Gly Arg Trp Ser Thr His
65 70 75 80
His Arg Val Glu Ser Lys Ala Ser Pro Leu Ser Pro Ser Leu Pro Trp
85 90 95
Thr Ser Pro Leu Pro Ala Thr Leu Ala Gly Leu Cys Glu Trp Glu Gly
100 105 110
Arg Pro Ala Leu Ala Gly Ser Ser Pro Val Pro Pro Ala Leu Ile Leu
115 120 125
Gly

<210> 3291

<211> 1075

<212> DNA

<213> Homo sapiens

<400> 3291

nngcntatgg ggtgcgcttt acgcgactgc cgctggagcg cggtgtgggt ggctgcactt
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120
tgggccccctt ctcgccccac gcctgcgggtg aggtctccccg ccccgctctcc taccatagct
180
gcctctgtcc ctcgcactg gctgttcacc tggctagctg tgtccgtttc tcaaccggga
240
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300
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360
ccccccacag gtggacagac gccttcgnnt gggcctgagc acttgccggc ggcacatgtc
420
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480
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600
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720
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960
ctagggcccc cagagcattt ggtgcccctc catgttgcaa tgcaaacacc ttcaccactg
1020

gggcagtggg gagagatggc tatattaata aaataacgtg tgtctttcaa aaaaa
1075

<210> 3292
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3292
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Val Ala Ala Leu Gly Trp Arg Pro Pro Arg Val Pro Ser Pro Ala Pro
20 25 30
Trp Ser Ala Thr Pro Gly Pro Pro Trp Ala Pro Ser Pro Ala Thr Pro
35 40 45
Ala Val Arg Leu Pro Ala Pro Ser Pro Thr Ile Ala Ala Ser Val Pro
50 55 60
Pro His Trp Leu Phe Thr Trp Leu Ala Val Ser Val Ser Gln Pro Gly
65 70 75 80
Ser Glu Ser Xaa Arg Arg Pro Leu Pro Pro Gln Leu Pro Pro Pro
85 90 95
Thr Pro Pro Ser Leu Pro
100

<210> 3293
<211> 2362
<212> DNA
<213> Homo sapiens

<400> 3293
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120
gcaggacgcc gacacctacc cctcagcaga cgccggagag aaatgagtag caacaaagag
180
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240
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540
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600
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660
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720

cggcaatttg acgacctctt ccgggggtgag acgggcaagg acaggagaa gtctcattcg
780
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840
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1020
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1140
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2340

aaaaaaaaaa aaaaaaaaaa aa
2362

<210> 3294
<211> 353
<212> PRT
<213> Homo sapiens

<400> 3294
Xaa Ser Pro Lys Pro Ala Leu Pro Ala Gly Asp Glu Glu Thr Glu Ala
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Gln Arg Gly His Met Ala Cys Ser Arg Pro Pro Ser Gln Cys Glu Pro
20 25 30
Thr Ser Leu Pro Pro Gly Pro Pro Ala Gly Arg Arg His Leu Pro Leu
35 40 45
Ser Arg Arg Arg Arg Glu Met Ser Ser Asn Lys Glu Gln Arg Ser Ala
50 55 60
Val Phe Val Ile Leu Phe Ala Leu Ile Thr Ile Leu Ile Leu Tyr Ser
65 70 75 80
Ser Asn Ser Ala Asn Glu Val Phe His Tyr Gly Ser Leu Arg Gly Arg
85 90 95
Ser Arg Arg Pro Val Asn Leu Lys Lys Trp Ser Ile Thr Asp Gly Tyr
100 105 110
Val Pro Ile Leu Gly Asn Lys Thr Leu Pro Ser Arg Cys His Gln Cys
115 120 125
Val Ile Val Ser Ser Ser Ser His Leu Leu Gly Thr Lys Leu Gly Pro
130 135 140
Glu Ile Glu Arg Ala Glu Cys Thr Ile Arg Met Asn Asp Ala Pro Thr
145 150 155 160
Thr Gly Tyr Ser Ala Asp Val Gly Asn Lys Thr Thr Tyr Arg Val Val
165 170 175
Ala His Ser Ser Val Phe Arg Val Leu Arg Arg Pro Gln Glu Phe Val
180 185 190
Asn Arg Thr Pro Glu Thr Val Phe Ile Phe Trp Gly Pro Pro Ser Lys
195 200 205
Met Gln Lys Pro Gln Gly Ser Leu Val Arg Val Ile Gln Arg Ala Gly
210 215 220
Leu Val Phe Pro Asn Met Glu Ala Tyr Ala Val Ser Pro Gly Arg Met
225 230 235 240
Arg Gln Phe Asp Asp Leu Phe Arg Gly Glu Thr Gly Lys Asp Arg Glu
245 250 255
Lys Ser His Ser Trp Leu Ser Thr Gly Trp Phe Thr Met Val Ile Ala
260 265 270
Val Glu Leu Cys Asp His Val His Val Tyr Gly Met Val Pro Pro Asn
275 280 285
Tyr Cys Ser Gln Arg Pro Arg Leu Gln Arg Met Pro Tyr His Tyr Tyr
290 295 300
Glu Pro Lys Gly Pro Asp Glu Cys Val Thr Tyr Ile Gln Asn Glu His
305 310 315 320
Ser Arg Lys Gly Asn His His Arg Phe Ile Thr Glu Lys Arg Val Phe
325 330 335
Ser Ser Trp Ala Gln Leu Tyr Gly Ile Thr Phe Ser His Pro Ser Trp
340 345 350
Thr

2485

<210> 3295
<211> 690
<212> DNA
<213> Homo sapiens

<400> 3295
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120
gtcagactca ttttcagcct cattaggcag cagacggaga tggagggagg agagcaggag
180
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240
gaactggaaa aataagcctt ccaggattgt ggggagaaaag acgctgtggg agaggccagg
300
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360
tctgcaagtc aagaaggga cagagcacgc cgacctctc cctttccctt ctgtctctct
420
tagtggcttt acagtgggta ccctgtcaga aaccagcact gggggccctg ccacccccac
480
atggaaggag tgtcctatct gtaaggagcg ctttcctgct gagagtgaca aggatgccct
540
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<400> 3296
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Thr Glu His Ala Asp Pro Leu Pro Phe Pro Ser Val Ser Leu Ser Gly
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Phe Thr Val Gly Thr Leu Ser Glu Thr Ser Thr Gly Gly Pro Ala Thr
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Pro Thr Trp Lys Glu Cys Pro Ile Cys Lys Glu Arg Phe Pro Ala Glu
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<211> 3176
<212> DNA
<213> Homo sapiens

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<213> Homo sapiens

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<211> 219

<212> PRT

<213> Homo sapiens

<400> 3300

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Glu Lys Arg Val Pro Asp Asp Lys Thr Ile Asn Glu Ile Leu Lys Pro
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Tyr Ile Asp Pro Glu Lys Ser Asp Pro Val Ile Arg Gln Arg Leu Lys
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Ala Tyr Ile Arg Ser Gln Thr Gly Val Gln Ile Leu Met Lys Ile Glu
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<212> DNA

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<212> PRT
<213> Homo sapiens

<400> 3302

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Gly Ser Thr Gln Leu Met Ala Leu Pro Ile Thr Gly Pro Gly Ser Pro
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<212> PRT

<213> Homo sapiens

<400> 3304

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<212> DNA

<213> Homo sapiens

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<210> 3306

<211> 319
 <212> PRT
 <213> Homo sapiens

<400> 3306
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 20 25 30
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 35 40 45
 Trp His Pro Thr Leu Asn Leu Pro Leu Ser Pro Gln Gly Thr Val Arg
 50 55 60
 Thr Ala Val Glu Phe Gln Val Met Thr Gln Thr Gln Ser Leu Ser Phe
 65 70 75 80
 Leu Leu Gly Ser Ser Ala Ser Leu Asp Cys Gly Phe Ser Met Ala Pro
 85 90 95
 Gly Leu Asp Leu Ile Ser Val Glu Trp Arg Leu Gln His Lys Gly Arg
 100 105 110
 Gly Gln Leu Val Tyr Ser Trp Thr Ala Gly Gln Gly Gln Ala Val Arg
 115 120 125
 Lys Gly Ala Thr Leu Xaa Ala Cys Thr Thr Gly His Gly Xaa Arg Asp
 130 135 140
 Ala Ser Leu Thr Leu Pro Gly Leu Thr Ile Gln Asp Glu Gly Thr Tyr
 145 150 155 160
 Ile Cys Gln Ile Thr Thr Ser Leu Tyr Arg Ala Gln Gln Ile Ile Gln
 165 170 175
 Leu Asn Ile Gln Ala Ser Pro Lys Val Arg Leu Ser Leu Ala Asn Glu
 180 185 190
 Ala Leu Leu Pro Thr Leu Ile Cys Asp Ile Ala Gly Tyr Tyr Pro Leu
 195 200 205
 Asp Val Val Val Thr Trp Thr Arg Glu Glu Leu Gly Gly Ser Pro Ala
 210 215 220
 Gln Val Ser Gly Ala Ser Phe Ser Ser Leu Arg Gln Ser Val Ala Gly
 225 230 235 240
 Thr Tyr Ser Ile Ser Ser Ser Leu Thr Ala Glu Pro Gly Leu Cys Arg
 245 250 255
 Cys His Leu His Leu Pro Gly His Thr His Leu Ser Gly Gly Ala Pro
 260 265 270
 Trp Gly Gln His Pro Gly Cys Pro Thr Arg Ala Glu Asn Ser Leu Gly
 275 280 285
 Ser His Leu Cys Gln Gln Ser Leu Pro Ser Cys Thr Asp Val Pro Gly
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 Ala Ser Glu Thr Ala Ser Thr Tyr Arg Thr Trp Ala Ala Ser Gly
 305 310 315

<210> 3307
 <211> 352
 <212> DNA
 <213> Homo sapiens

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240
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352

<210> 3308

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3308

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Ser	Leu	His	Pro	Asp	Pro	Gly	Ala	Ser	Leu	Pro	Cys	Pro	Val	Leu	Ile
			20					25					30		
Pro	Arg	Trp	Glu	Pro	Cys	Leu	Gly	Gln	Gly	Gly	Arg	Val	Asp	Gly	Ser
		35					40					45			
Trp	Asp	Cys	Asp	Ile	Gly	Arg	Arg	Gly	Arg	Ser	Pro	Ala	Leu	Ser	Ser
	50				55					60					
Ala	Gly	Trp	Ala	Gly	Ile	His	Leu	Ala	Ala	Ser	Gln	Gly	Leu	Cys	Pro
65					70					75				80	
Ala	Gly	Trp	Ser	Leu	Cys	Cys	Pro	Asn	Gln	Val	Ser	Thr	Phe	Pro	Ala
			85					90						95	
Pro	Met	Arg	Arg	Glu	Gly	Gly	Arg	Trp	Trp	Leu	Gly	Trp	Arg		
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<210> 3309

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3309

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120
ccccaggacc ccaagtacca gggctctgagg gcacgtggcc gggagatccg gaaggagctt
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gttacctgt accccagggg gggccagctt gaggagcagt tctacctgca ggcgctgaag
240
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300
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420
tacctgcgag gggctggagc cctcctgcag cacggcctgg tcaacttcac attcaacaag
480

cttctccgcc ggggcttcac ccccatgacg gtgccagacc ttctccgcgg agcagtgttt
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600
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720
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737

<210> 3310
<211> 210
<212> PRT
<213> Homo sapiens

<400> 3310
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20 25 30
Ala Gln Leu Glu Glu Gln Phe Tyr Leu Gln Ala Leu Lys Leu Pro Asn
35 40 45
Gln Thr His Pro Asp Val Pro Val Gly Asp Glu Ser Gln Ala Arg Val
50 55 60
Leu His Met Val Gly Asp Lys Pro Val Phe Ser Phe Gln Pro Arg Gly
65 70 75 80
His Leu Glu Ile Gly Glu Lys Leu Asp Ile Ile Arg Gln Lys Arg Leu
85 90 95
Ser His Val Ser Gly His Arg Ser Tyr Tyr Leu Arg Gly Ala Gly Ala
100 105 110
Leu Leu Gln His Gly Leu Val Asn Phe Thr Phe Asn Lys Leu Leu Arg
115 120 125
Arg Gly Phe Thr Pro Met Thr Val Pro Asp Leu Leu Arg Gly Ala Val
130 135 140
Phe Glu Gly Cys Gly Met Thr Pro Asn Ala Asn Pro Ser Gln Ile Tyr
145 150 155 160
Asn Ile Asp Pro Ala Arg Phe Lys Asp Leu Asn Leu Ala Gly Thr Ala
165 170 175
Glu Val Gly Leu Ala Gly Tyr Phe Met Asp His Thr Val Ala Phe Arg
180 185 190
Asp Leu Pro Val Arg Met Val Cys Ser Ser Thr Cys Tyr Arg Ala Glu
195 200 205
Thr Asn
210

<210> 3311
<211> 486
<212> DNA
<213> Homo sapiens

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120
aggaaagatc aaggagtaaa ccagaagaag aagaaaaaga ggacttcaaa gctgggaagg
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atgagttctt gcagcaacgt ctgtgggtcc aggcaggcac aggctgcagc tgaggggtgt
240
taccagcgt atggagtccg gtcctacctg caccagtttt atgaggactg tacagcctca
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360
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<210> 3312
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3312
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Phe Tyr Glu Asp Cys Thr Ala Ser Ile Trp Glu Tyr Glu Asp Asp Phe
35 40 45
Gln Ile Gln Arg Ser Pro Asn Arg Trp Ser Ser Val Phe Trp Lys Val
50 55 60
Gly Leu Ile Ser Gly Thr Val Phe Val Ile Leu Gly Leu Thr Val Leu
65 70 75 80
Ala Val Gly Phe Leu Val Pro Pro Lys Ile Glu Ala Phe Gly Glu Ala
85 90 95
Asp Phe Val Val Val Asp
100

<210> 3313
<211> 1791
<212> DNA
<213> Homo sapiens

<400> 3313
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300

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360
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420
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<210> 3314

<211> 537

<212> PRT

<213> Homo sapiens

<400> 3314

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 Ala Arg Thr Ala Val Lys Arg Arg Pro Gly Ala Gly Arg Val Gly Gly
 35 40 45
 Gly Gly Gly Arg Xaa Arg Ser Arg Gln Pro Glu Gly Leu Arg Ser His
 50 55 60
 His Lys Val Ser Val Ser Pro Val Val His Val Arg Gly Leu Cys Glu
 65 70 75 80
 Ser Val Val Glu Ala Asp Leu Val Glu Ala Leu Glu Lys Phe Gly Thr
 85 90 95
 Ile Cys Tyr Val Met Met Met Pro Phe Lys Arg Gln Ala Leu Val Glu
 100 105 110
 Phe Glu Asn Ile Asp Ser Ala Lys Glu Cys Val Thr Phe Ala Ala Asp
 115 120 125
 Glu Pro Val Tyr Ile Ala Gly Gln Gln Ala Phe Phe Asn Tyr Ser Thr
 130 135 140
 Ser Lys Arg Ile Thr Arg Pro Gly Asn Thr Asp Asp Pro Ser Gly Gly
 145 150 155 160
 Asn Lys Val Leu Leu Leu Ser Ile Gln Asn Pro Leu Tyr Pro Ile Thr
 165 170 175
 Val Asp Val Leu Tyr Thr Val Cys Asn Pro Val Gly Lys Val Gln Arg
 180 185 190
 Ile Val Ile Phe Lys Arg Asn Gly Ile Gln Ala Met Val Glu Phe Glu
 195 200 205
 Ser Val Leu Cys Ala Gln Lys Ala Lys Ala Ala Leu Asn Gly Ala Asp
 210 215 220
 Ile Tyr Ala Gly Cys Cys Thr Leu Lys Ile Glu Tyr Ala Arg Pro Thr
 225 230 235 240
 Arg Leu Asn Val Ile Arg Asn Asp Asn Asp Ser Trp Asp Tyr Thr Lys
 245 250 255
 Pro Tyr Leu Gly Arg Arg Asp Arg Gly Lys Gly Arg Gln Arg Gln Ala
 260 265 270
 Ile Leu Gly Glu His Pro Ser Ser Phe Arg His Asp Gly Tyr Gly Ser
 275 280 285
 His Gly Pro Leu Leu Pro Leu Pro Ser Arg Tyr Arg Met Gly Ser Arg
 290 295 300
 Asp Thr Pro Glu Leu Val Ala Tyr Pro Leu Pro Gln Ala Ser Ser Ser
 305 310 315 320
 Tyr Met His Gly Gly Asn Pro Ser Gly Ser Val Val Met Val Ser Gly
 325 330 335
 Leu His Gln Leu Lys Met Asn Cys Ser Arg Val Phe Asn Leu Phe Cys
 340 345 350
 Leu Tyr Gly Asn Ile Glu Lys Val Lys Phe Met Lys Thr Ile Pro Gly
 355 360 365
 Thr Ala Leu Val Glu Met Gly Asp Glu Tyr Ala Val Glu Arg Ala Val
 370 375 380
 Thr His Leu Asn Asn Val Lys Leu Phe Gly Lys Arg Leu Asn Val Cys
 385 390 395 400
 Val Ser Lys Gln His Ser Val Val Pro Ser Gln Ile Phe Glu Leu Glu

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      420      425      430
Phe Thr Ser Ala Gly Gln Ala Ser Lys Asn Ile Ile Gln Pro Pro Ser
      435      440      445
Cys Val Leu His Tyr Tyr Asn Val Pro Leu Cys Val Thr Glu Glu Thr
      450      455      460
Phe Thr Lys Leu Cys Asn Asp His Glu Val Leu Thr Phe Ile Lys Tyr
      465      470      475      480
Lys Val Phe Asp Ala Lys Pro Ser Ala Lys Thr Leu Ser Gly Leu Leu
      485      490      495
Glu Trp Glu Cys Lys Thr Asp Ala Val Glu Ala Leu Thr Ala Leu Asn
      500      505      510
His Tyr Gln Ile Arg Val Pro Asn Gly Ser Asn Pro Tyr Thr Leu Lys
      515      520      525
Leu Cys Phe Ser Thr Ser Ser His Leu
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<210> 3315

<211> 934

<212> DNA

<213> Homo sapiens

<400> 3315

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900

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934

<210> 3316
<211> 187
<212> PRT
<213> Homo sapiens

<400> 3316
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Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro Glu Val Val Leu
35 40 45
Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu Val Val Lys Lys
50 55 60
Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg Leu Phe Ala Val
65 70 75 80
Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser Glu Asp Leu Ile
85 90 95
Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu Arg Ile Arg Leu
100 105 110
Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr Leu Leu Gly Lys
115 120 125
Pro Leu Leu Gly Lys Asp Leu Val Arg Val Glu Ala Thr Val Ile Glu
130 135 140
Lys Thr Glu Ser Trp Pro Arg Ile Ile Met Arg Phe Arg Lys Arg Lys
145 150 155 160
Asn Phe Lys Lys Lys Arg Ile Val Thr Thr Pro Gln Thr Val Leu Arg
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Ile Asn Ser Ile Glu Ile Ala Pro Cys Leu Leu
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<210> 3317
<211> 1665
<212> DNA
<213> Homo sapiens

<400> 3317
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<210> 3318

<211> 253

<212> PRT

<213> Homo sapiens

<400> 3318

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		20					25				30				
Glu	Lys	Arg	Glu	Glu	Arg	Arg	Arg	Glu	Leu	Glu	Lys	Lys	Arg	Leu	

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 50 55 60
 Lys Glu Thr Asp Lys Gln Lys Lys Ile Ala Glu Lys Glu Val Arg Ile
 65 70 75 80
 Lys Leu Leu Lys Lys Pro Glu Lys Gly Glu Glu Pro Thr Thr Glu Lys
 85 90 95
 Pro Lys Glu Arg Gly Glu Glu Ile Asp Thr Gly Gly Gly Lys Gln Glu
 100 105 110
 Ser Cys Ala Pro Gly Ala Val Val Lys Ala Arg Pro Met Glu Gly Ser
 115 120 125
 Leu Glu Glu Pro Gln Glu Thr Ser His Ser Gly Ser Asp Lys Glu His
 130 135 140
 Arg Asp Val Glu Arg Ser Gln Glu Gln Glu Ser Glu Ala Gln Arg Tyr
 145 150 155 160
 His Val Asp Asp Gly Arg Arg His Arg Ala His His Glu Pro Glu Arg
 165 170 175
 Leu Ser Arg Arg Ser Glu Asp Glu Gln Arg Trp Gly Lys Gly Pro Gly
 180 185 190
 Gln Asp Arg Gly Lys Lys Gly Ser Gln Asp Ser Gly Ala Pro Gly Glu
 195 200 205
 Ala Met Glu Arg Leu Gly Arg Ala Gln Arg Cys Asp Asp Ser Pro Ala
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 <213> Homo sapiens

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<211> 256

<212> PRT

<213> Homo sapiens

<400> 3320

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Ala Pro Ala Arg Pro Arg Glu Lys Pro Leu Ile Arg Ser Gln Ser Leu		
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<212> DNA

<213> Homo sapiens

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 Lys Ile Asp Glu Ile Arg Arg Thr Val Tyr Val Gly Asn Leu Asn Ser

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Glu Val Met Lys Arg Val Arg Glu Ala Gln Ser Phe Ile Ser Ala Ala		
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<211> 949

<212> DNA

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<212> PRT

<213> Homo sapiens

<400> 3324

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<212> PRT
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Val Pro Thr Thr Pro Glu Asp Phe Leu Ser Asn Val Asp Glu Met Asp
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Thr Gly Glu Asn Ala Gly Gln Thr Pro Met Asn Ile Asn Pro Gln Gln
195 200 205
Thr Arg Phe Pro Asp Phe Leu Asp Cys Leu Pro Gly Thr Asn Val Asp
210 215 220
Leu Gly Thr Leu Glu Ser Glu Asp Leu Ile Pro Leu Phe Asn Asp Val
225 230 235 240
Glu Ser Ala Leu Asn Lys Ser Glu Pro Phe Leu Thr Trp Leu
245 250

<210> 3327
<211> 2263
<212> DNA
<213> Homo sapiens

<400> 3327
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120
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180

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240
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2263

<210> 3328

<211> 521

<212> PRT

<213> Homo sapiens

<400> 3328

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			20					25					30		
His	Trp	Ser	Asp	Ser	Arg	Tyr	Glu	His	Val	Met	Lys	Leu	Arg	Gln	Ala
			35				40					45			
Ala	Leu	Lys	Ser	Ala	Arg	Asp	Met	Trp	Ala	Asp	Tyr	Ile	Leu	Phe	Val
	50					55					60				
Asp	Ala	Asp	Asn	Leu	Ile	Leu	Asn	Pro	Asp	Thr	Leu	Ser	Leu	Leu	Ile
65				70				75						80	
Ala	Glu	Asn	Lys	Thr	Val	Val	Ala	Pro	Met	Leu	Asp	Ser	Arg	Ala	Ala
			85					90						95	
Tyr	Ser	Asn	Phe	Trp	Cys	Gly	Met	Thr	Ser	Gln	Gly	Tyr	Tyr	Lys	Arg
			100					105						110	
Thr	Pro	Ala	Tyr	Ile	Pro	Ile	Arg	Lys	Arg	Asp	Arg	Arg	Gly	Cys	Phe
			115				120						125		
Ala	Val	Pro	Met	Val	His	Ser	Thr	Phe	Leu	Ile	Asp	Leu	Arg	Lys	Ala
			130				135					140			
Ala	Ser	Arg	Asn	Leu	Ala	Phe	Tyr	Pro	Pro	His	Pro	Asp	Tyr	Thr	Trp
145				150				155						160	
Ser	Phe	Asp	Asp	Ile	Ile	Val	Phe	Ala	Phe	Ser	Cys	Lys	Gln	Ala	Glu
			165					170						175	
Val	Gln	Met	Tyr	Val	Cys	Asn	Lys	Glu	Glu	Tyr	Gly	Phe	Leu	Pro	Val
			180					185					190		
Pro	Leu	Arg	Ala	His	Ser	Thr	Leu	Gln	Asp	Glu	Ala	Glu	Ser	Phe	Met
			195				200						205		
His	Val	Gln	Leu	Glu	Val	Met	Val	Lys	His	Pro	Pro	Ala	Glu	Pro	Ser
			210				215						220		
Arg	Phe	Ile	Ser	Ala	Pro	Thr	Lys	Thr	Pro	Asp	Lys	Met	Gly	Phe	Asp
225				230						235				240	
Glu	Val	Phe	Met	Ile	Asn	Leu	Arg	Arg	Arg	Gln	Asp	Arg	Arg	Glu	Arg
			245					250						255	
Met	Leu	Arg	Ala	Leu	Gln	Ala	Gln	Glu	Ile	Glu	Cys	Arg	Leu	Val	Glu

260	265	270
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275	280	285
Ile Gln Met Leu Pro Gly Tyr Arg Asp Pro Tyr His Gly Arg Pro Leu		
290	295	300
Thr Lys Gly Glu Leu Gly Cys Phe Leu Ser His Tyr Asn Ile Trp Lys		
305	310	315
Glu Val Val Asp Arg Gly Leu Gln Lys Ser Leu Val Phe Glu Asp Asp		
325	330	335
Leu Arg Phe Glu Ile Phe Phe Lys Arg Arg Leu Met Asn Leu Met Arg		
340	345	350
Asp Val Glu Arg Glu Gly Leu Asp Trp Asp Leu Ile Tyr Val Gly Arg		
355	360	365
Lys Arg Met Gln Val Glu His Pro Glu Lys Ala Val Pro Arg Val Arg		
370	375	380
Asn Leu Val Glu Ala Asp Tyr Ser Tyr Trp Thr Leu Ala Tyr Val Ile		
385	390	395
Ser Leu Gln Gly Ala Arg Lys Leu Leu Ala Ala Glu Pro Leu Ser Lys		
405	410	415
Met Leu Pro Val Asp Glu Phe Leu Pro Val Met Phe Asp Lys His Pro		
420	425	430
Val Ser Glu Tyr Lys Ala His Phe Ser Leu Arg Asn Leu His Ala Phe		
435	440	445
Ser Val Glu Pro Leu Leu Ile Tyr Pro Thr His Tyr Thr Gly Asp Asp		
450	455	460
Gly Tyr Val Ser Asp Thr Glu Thr Ser Val Val Trp Asn Asn Glu His		
465	470	475
Val Lys Thr Asp Trp Asp Arg Ala Lys Ser Gln Lys Met Arg Glu Gln		
485	490	495
Gln Ala Leu Ser Arg Glu Ala Lys Asn Ser Asp Val Leu Gln Ser Pro		
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<211> 705

<212> DNA

<213> Homo sapiens

<400> 3329

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120

aatgaccggc ggctgcacgc ggagcctgtg cccactctcg ccttcaccca cgtggctcgt

180

gctcaagctg ggatgtacca ctgcctggct gagctcccca ctggggctgc tgcctctgct

240

ccagtcacgc tccgtgtgct ctacctccc aagacgcca ccatgatggt cttcgtggag

300

cctgaggggtg gcctccgggg catcctggat tgccgagtgg acagcgagcc gctcgccagc

360

ctgactctcc accttggcag tcgactggtg gcctccagtc agccccaggg tgctcctgca

420

gagccacaca tccatgtcct ggcttccccc aatgcctga gggaggacat cgaggcgtg
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540
acctccacct actttggggg cagagcctg caccgcctgc atcagttcca gcagctgctc
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<210> 3330

<211> 235

<212> PRT

<213> Homo sapiens

<400> 3330

Xaa	Ala	Arg	Val	Val	Ala	Glu	Pro	Gly	Leu	Asp	Val	Pro	Glu	Gly	Ala
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		20					25					30			
Asn	Ser	Thr	Phe	Ala	Trp	Phe	Trp	Asn	Asp	Arg	Arg	Leu	His	Ala	Glu
		35				40				45					
Pro	Val	Pro	Thr	Leu	Ala	Phe	Thr	His	Val	Ala	Arg	Ala	Gln	Ala	Gly
	50				55			60							
Met	Tyr	His	Cys	Leu	Ala	Glu	Leu	Pro	Thr	Gly	Ala	Ala	Ala	Ser	Ala
65				70				75						80	
Pro	Val	Met	Leu	Arg	Val	Leu	Tyr	Pro	Pro	Lys	Thr	Pro	Thr	Met	Met
			85					90						95	
Val	Phe	Val	Glu	Pro	Glu	Gly	Gly	Leu	Arg	Gly	Ile	Leu	Asp	Cys	Arg
		100					105						110		
Val	Asp	Ser	Glu	Pro	Leu	Ala	Ser	Leu	Thr	Leu	His	Leu	Gly	Ser	Arg
		115					120				125				
Leu	Val	Ala	Ser	Ser	Gln	Pro	Gln	Gly	Ala	Pro	Ala	Glu	Pro	His	Ile
	130				135					140					
His	Val	Leu	Ala	Ser	Pro	Asn	Ala	Leu	Arg	Val	Asp	Ile	Glu	Ala	Leu
145				150				155						160	
Arg	Pro	Ser	Asp	Gln	Gly	Glu	Tyr	Ile	Cys	Ser	Ala	Ser	Asn	Val	Leu
			165					170						175	
Gly	Ser	Ala	Ser	Thr	Ser	Thr	Tyr	Phe	Gly	Val	Arg	Ala	Leu	His	Arg
		180					185						190		
Leu	His	Gln	Phe	Gln	Gln	Leu	Leu	Trp	Val	Leu	Gly	Leu	Leu	Val	Gly
	195					200					205				
Leu	Leu	Leu	Leu	Leu	Leu	Gly	Leu	Gly	Ala	Cys	Tyr	Thr	Trp	Arg	Arg
	210				215					220					
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<210> 3331

<211> 1644

<212> DNA

<213> Homo sapiens

<400> 3331

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240
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300
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360
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420
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660
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720
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780
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840
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<210> 3332

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3332

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Thr	Ile	Phe	Gln	Gly	Glu	Val	Ala	Met	Val	Thr	Asp	Tyr	Gly	Ala	Phe
		20					25					30			
Ile	Lys	Ile	Pro	Gly	Cys	Arg	Lys	Gln	Gly	Leu	Val	His	Arg	Thr	His
	35					40					45				
Met	Ser	Ser	Cys	Arg	Val	Asp	Lys	Pro	Ser	Glu	Ile	Val	Asp	Val	Gly
	50					55				60					
Asp	Lys	Val	Trp	Val	Lys	Leu	Ile	Gly	Arg	Glu	Met	Lys	Asn	Asp	Arg
65				70				75					80		
Ile	Lys	Val	Ser	Leu	Ser	Met	Lys	Val	Val	Asn	Gln	Gly	Thr	Gly	Lys
		85					90					95			
Asp	Leu	Asp	Pro	Asn	Asn	Val	Ser	Leu	Ser	Lys	Lys	Arg	Gly	Gly	Gly
		100				105						110			
Asp	Pro	Ser	Arg	Ile	Thr	Leu	Gly	Arg	Arg	Ser	Pro	Leu	Arg	Leu	Ser
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<210> 3333

<211> 2422

<212> DNA

<213> Homo sapiens

<400> 3333

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660

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2160
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2280

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2340
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2400
aaaaaaaggg aaaaaaaaaa ag
2422

<210> 3334
<211> 672
<212> PRT
<213> Homo sapiens

<400> 3334
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Ile Tyr Glu Ala Gly Ala Gly Asp Arg Met Ala Gly Ala Pro Met Ala
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Ala Ala Val Gln Pro Ala Glu Val Thr Val Glu Val Gly Glu Asp Leu
35 40 45
His Met His His Val Arg Asp Arg Glu Met Pro Glu Ala Leu Glu Phe
50 55 60
Asn Leu Ser Ala Asn Pro Glu Ser Ser Thr Ile Phe Gln Arg Asn Ser
65 70 75 80
Gln Thr Glu Ala Leu Glu Phe Asn Pro Ser Ala Asn Pro Glu Ala Ser
85 90 95
Thr Ile Phe Gln Arg Asn Ser Gln Thr Asp Val Val Glu Ile Arg Arg
100 105 110
Ser Asn Cys Thr Asn His Val Ser Ala Val Arg Phe Ser Gln Gln Tyr
115 120 125
Ser Leu Cys Ser Thr Ile Phe Leu Asp Asp Ser Thr Ala Ile Gln His
130 135 140
Tyr Leu Thr Met Thr Ile Ile Ser Val Thr Leu Glu Ile Pro His His
145 150 155 160
Ile Thr Gln Arg Asp Ala Asp Arg Thr Leu Ser Ile Pro Asp Glu Gln
165 170 175
Leu His Ser Phe Ala Val Ser Thr Val His Ile Met Lys Lys Arg Asn
180 185 190
Gly Gly Gly Ser Leu Asn Asn Tyr Ser Ser Ser Ile Pro Ser Thr Pro
195 200 205
Ser Thr Ser Gln Glu Asp Pro Gln Phe Ser Val Pro Pro Thr Ala Asn
210 215 220
Thr Pro Thr Pro Val Cys Lys Arg Ser Met Arg Trp Ser Asn Leu Phe
225 230 235 240
Thr Ser Glu Lys Gly Ser His Pro Asp Lys Glu Arg Lys Ala Pro Glu
245 250 255
Asn His Ala Asp Thr Ile Gly Ser Gly Arg Ala Ile Pro Ile Lys Gln
260 265 270
Gly Met Leu Leu Lys Arg Ser Gly Lys Trp Leu Lys Thr Trp Lys Lys
275 280 285
Lys Tyr Val Thr Leu Cys Ser Asn Gly Met Leu Thr Tyr Tyr Ser Ser
290 295 300
Leu Gly Asp Tyr Met Lys Asn Ile His Lys Lys Glu Ile Asp Leu Gln
305 310 315 320
Thr Ser Thr Ile Lys Val Pro Gly Lys Trp Pro Ser Leu Ala Thr Ser

325 330 335
Ala Cys Thr Pro Ile Ser Ser Ser Lys Ser Asn Gly Leu Ser Lys Asp
340 345 350
Met Asp Thr Gly Leu Gly Asp Ser Ile Cys Phe Ser Pro Ser Ile Ser
355 360 365
Ser Thr Thr Ser Pro Lys Leu Asn Pro Pro Pro Ser Pro His Ala Asn
370 375 380
Lys Lys Lys His Leu Lys Lys Lys Ser Thr Asn Asn Phe Met Ile Val
385 390 395 400
Ser Ala Thr Gly Gln Thr Trp His Phe Glu Ala Thr Thr Tyr Glu Glu
405 410 415
Arg Asp Ala Trp Val Gln Ala Ile Gln Ser Gln Ile Leu Ala Ser Leu
420 425 430
Gln Ser Cys Glu Ser Ser Lys Ser Lys Ser Gln Leu Thr Ser Gln Ser
435 440 445
Glu Ala Met Ala Leu Gln Ser Ile Gln Asn Met Arg Gly Asn Ala His
450 455 460
Cys Val Asp Cys Glu Thr Gln Asn Pro Lys Trp Ala Ser Leu Asn Leu
465 470 475 480
Gly Val Leu Met Cys Ile Glu Cys Ser Gly Ile His Arg Ser Leu Gly
485 490 495
Thr Arg Leu Ser Arg Val Arg Ser Leu Glu Leu Asp Asp Trp Pro Val
500 505 510
Glu Leu Arg Lys Val Met Ser Ser Ile Gly Asn Glu Leu Ala Asn Ser
515 520 525
Ile Trp Glu Glu Ser Ser Gln Gly Arg Thr Lys Pro Ser Val Asp Ser
530 535 540
Thr Arg Glu Glu Lys Glu Arg Trp Ile Arg Ser Lys Tyr Glu Glu Lys
545 550 555 560
Leu Phe Leu Ala Pro Leu Pro Cys Thr Glu Leu Ser Leu Gly Gln Gln
565 570 575
Leu Leu Arg Ala Thr Ala Asp Glu Asp Leu Gln Thr Ala Ile Leu Leu
580 585 590
Leu Ala His Gly Ser Arg Glu Glu Val Asn Glu Thr Cys Gly Glu Gly
595 600 605
Asp Gly Cys Thr Ala Leu His Leu Ala Cys Arg Lys Gly Asn Val Val
610 615 620
Leu Ala Gln Leu Leu Ile Trp Tyr Gly Val Asp Val Met Ala Arg Asp
625 630 635 640
Ala His Gly Asn Thr Ala Leu Thr Tyr Ala Arg Gln Ala Ser Ser Gln
645 650 655
Glu Cys Ile Asn Val Leu Leu Gln Tyr Gly Cys Pro Asp Lys Cys Val
660 665 670

<210> 3335

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3335

nggatccatc acgcgttcag ggcagcggaa ttccggctcc ccagggggca gctcaggcag

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ggcctcttca ggagtgcagt ccgggacctc ctccccaggg cctgtctcat gctgtctcgg

120

cccagactgc ttgttgaagg ggttgaggtg ggcctgccgg aaacgggcca gcttctcatc
180
atattccata gcatcccacc tgcacgcct gccagggccc aggggctcgc agggacagga
240
tggtccattcc tctagggctg ctggccacgg aagcctggcc gtgggttcgg cacctgctga
300
ccgccgcctc gcatttgccc tgagacaggg ctggacagcc aggattaccg ctgtgccgag
360
tgccggggcg ccatctctct gcgggggtgtg cccagtgagg ccaggcagtg cgactacacc
420
ggccagtact actgcagccc ctgccactgg aacgccctgg ctgtgatccc tgcacgc
477

<210> 3336
<211> 59
<212> PRT
<213> Homo sapiens

<400> 3336
Pro Pro Pro Arg Ile Cys Pro Glu Thr Gly Leu Asp Ser Gln Asp Tyr
1 5 10 15
Arg Cys Ala Glu Cys Arg Ala Pro Ile Ser Leu Arg Gly Val Pro Ser
20 25 30
Glu Ala Arg Gln Cys Asp Tyr Thr Gly Gln Tyr Tyr Cys Ser Pro Cys
35 40 45
His Trp Asn Ala Leu Ala Val Ile Pro Ala Arg
50 55

<210> 3337
<211> 679
<212> DNA
<213> Homo sapiens

<400> 3337
nagatcttcc tcttgaatga tttgggcagc gagctctgta tgaagaagaa aaaggggaaa
60
aaaaagagaa agagagacac cccacagaga ggggggaagg aggttagatg gggcagtctc
120
agcttagcct ccaaagacac agatagagtg agagagagag acagagagag acacagagac
180
agacagagac caaaacagaa gcggcaaacg gcaaaaacga agcagaatca atgcaagtta
240
gagaaaaaaa taaaactaaa catcagagca gggaaaagtc atctactccg tatcacacct
300
gtgtattagc ttaaccagaa ataagctgga agaggagttc agtagcctct cagcccccta
360
aagatgttgg tcataccccc tctttcaccg tctgagtcga gaggacacca agccaaacaa
420
actgtgcccc aaactgggtc atctagtcct cccaggtcct tccttgctaa ctcgaggaaa
480
caaggaaaac caactttgga tggcaacttc aacaaggtaa ccctccttcc ttcaatggcc
540
agactgatgc ccactgacaa tggctttgag atgcttggac agcagactgt catgtcaaga
600

ctgcccagac cccaccaca ctgtggaaaa gggcagcacc agaccactg gagatgaggc
 660
 tcttgagcca agtgctagc
 679

<210> 3338
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 3338
 Xaa Ile Phe Leu Leu Asn Asp Leu Gly Ser Glu Leu Cys Met Lys Lys
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 Lys Lys Gly Lys Lys Lys Arg Lys Arg Asp Thr Pro Gln Arg Gly Gly
 20 25 30
 Lys Glu Val Arg Trp Gly Ser Leu Ser Leu Ala Ser Lys Asp Thr Asp
 35 40 45
 Arg Val Arg Glu Arg Asp Arg Glu Arg His Arg Asp Arg Gln Arg Pro
 50 55 60
 Lys Gln Lys Arg Gln Thr Ala Lys Thr Lys Gln Asn Gln Cys Lys Leu
 65 70 75 80
 Glu Lys Lys Ile Lys Leu Asn Ile Arg Ala Gly Lys Ser His Leu Leu
 85 90 95
 Arg Ile Thr Pro Val Tyr
 100

<210> 3339
 <211> 1341
 <212> DNA
 <213> Homo sapiens

<400> 3339
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 aggcattgaca caggtttggg ttcatttaagt cctcatgcag aattatatc ttctcgataa
 120
 agaagccagt tccatccagg atccactatc tacacaccta tgttacaaca ttatatcaaa
 180
 tctggtatct gaagaaaaga tacacattta atatgttcat ttaagttacg tattttgcag
 240
 aaagattaaa aattcattca cacaaaactc aaaaactgta ttaaaagttt gaatataaaa
 300
 ctcagatcca cctggaatga cttaaagaatg gaagtctctgt atccacctgt gttaaaactg
 360
 gtaaagttaa tgatatctgt taccaataaa acgcattcgt ttattcaatg taagtaagtt
 420
 atctaatttt aacaatatgg caccctaaaa accaactgta tttttatgat gaggcacttt
 480
 tgtagtgat gaaacaaaa gaacaaattt gctgcacact gatgccagcg attttcttca
 540
 gtgattttgg gtatatgcta tgtagtaagt tgcaacaaat accttgctca tttgtataca
 600
 actatccgat atatttttaa tatatatata tatatatggt cttctggctg tagtaatgca
 660

ctgtaaagct atttcacagt gcaaaatgat gaaaccagcc caaatgaagg ctgcataata
720
acaattctga tacaagaaaa tattgacaga gttactggaa cgtgtaacag tagttttttt
780
acttgctaga gtggacatac cccagtttta aagacagggg tgaaactctg ctttagtgcc
840
tgggggttca gacagtttat gaggttgggc attcgctgca gaactagcat ttttgctcac
900
gttctggaag ctttctccgt ttatttggtc aggtgactgt ggtggatgg aaagaagggg
960
cctgtttgtt gaagccaagg tgctggaaga actgcctgtg ttgcaatgaa gagacaaagg
1020
tgtgtcggtc gtggctatct ctcgtgtgct tgggttctct gtctggggat ctccgatttc
1080
tcctctgcta aggtcagagg tactggtgct taggcgttcc ctggccagcc agtctgagat
1140
ggaaaggctc tgggtgagc attttggttt taaccgggtt acagctgaaa gttcagattc
1200
tctctcccg cttctgctcat gcactttcca aaaattcaaa acgctgattt cagtagcatc
1260
tctgtgccct cctagtgtat gtctgcgcgc gatgcttttc ctttagcag tctcgccatt
1320
cactttgtga ttccctactc c
1341

<210> 3340
<211> 86
<212> PRT
<213> Homo sapiens

<400> 3340
Met Ser Thr Leu Ala Ser Lys Lys Thr Thr Val Thr Arg Ser Ser Asn
1 5 10 15
Ser Val Asn Ile Phe Leu Tyr Gln Asn Cys Tyr Tyr Ala Ala Phe Ile
20 25 30
Trp Ala Gly Phe Ile Ile Leu His Cys Glu Ile Ala Leu Gln Cys Ile
35 40 45
Thr Thr Ala Arg Arg Thr Tyr Ile Tyr Ile Tyr Ile Lys Asn Ile Ser
50 55 60
Asp Ser Cys Ile Gln Met Ser Lys Val Phe Val Ala Thr Tyr Tyr Ile
65 70 75 80
Ala Tyr Thr Gln Asn His
85

<210> 3341
<211> 1132
<212> DNA
<213> Homo sapiens

<400> 3341
ttttacagca caatatatgt gctctgctct cctcccgcaa tctgtctcca agagatctta
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agctggaggc accaggtctg aattccagac tctcccccac caccacact tcacctccaa
120

ctggagcatg accacagacc cattcagga ggctggcgga ctcttcatcc tggacagtcc
180
cttactgtat gtcaagtaaa gctgagaatg aagcggagag catcagacag aggagctggg
240
gaaacgtcgg ccagggccaa ggctctagga agtgggattt ctggaaataa tgcaaagaga
300
gctggaccat tcatccttgg tccccgtctg ggcaactcac cggtgccaag catagtgcag
360
tgtttggcga ggaaagatgg cacggatgac ttctatcagc tgaagatcct gaccctggag
420
gagagggggg accaaggcat agagagccag gaagagcggc agggcaagat gctgctgcac
480
accgagtact cactgctgtc tctcctgcac acgcaggatg gcgtggtgca ccaccacggc
540
ctcttccagg accgcacctg tgaaatcgtt gaggacacag aatccagccg gatggttaag
600
aagatgaaga agcgcactct cctcgtcctg gactgcctct gtgctcatga cttcagcgat
660
aagaccgctg acctcatcaa cctgcagcac tacgtcatca aggagaagag gctcagcgag
720
aggagagactg tggtaatctt ctacgacgtg gtccgcgtgg tggaggccct gcaccagaaa
780
aatatcgtgc acagagacct gaagctgggg aacatggtgc tcaacaagag gacacatcgg
840
ataaccatca ccaacttctg cctcgggaag catctggtga gcgaggggga cctgctgaag
900
gaccagagag ggagccctgc ctacatcagt cccgacgtgc tcagcggccg gccgtaccgt
960
ggcaagccca gtgacatgtg ggccctgggc gtggtgctct tcaccatgct gtatggccag
1020
ttcccccttct acgacagcat cccgcaggag ctcttccgca agatcaaggc tgccgagtat
1080
accattcctg aggatggacg gggttctgag aacaccgtgt gtctcatccg ga
1132

<210> 3342

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3342

Met	Lys	Arg	Arg	Ala	Ser	Asp	Arg	Gly	Ala	Gly	Glu	Thr	Ser	Ala	Arg
1			5					10			15				
Ala	Lys	Ala	Leu	Gly	Ser	Gly	Ile	Ser	Gly	Asn	Asn	Ala	Lys	Arg	Ala
		20					25				30				
Gly	Pro	Phe	Ile	Leu	Gly	Pro	Arg	Leu	Gly	Asn	Ser	Pro	Val	Pro	Ser
		35				40					45				
Ile	Val	Gln	Cys	Leu	Ala	Arg	Lys	Asp	Gly	Thr	Asp	Asp	Phe	Tyr	Gln
	50					55				60					
Leu	Lys	Ile	Leu	Thr	Leu	Glu	Glu	Arg	Gly	Asp	Gln	Gly	Ile	Glu	Ser
65				70					75				80		
Gln	Glu	Glu	Arg	Gln	Gly	Lys	Met	Leu	Leu	His	Thr	Glu	Tyr	Ser	Leu
			85				90						95		
Leu	Ser	Leu	Leu	His	Thr	Gln	Asp	Gly	Val	Val	His	His	His	Gly	Leu

100 105 110
Phe Gln Asp Arg Thr Cys Glu Ile Val Glu Asp Thr Glu Ser Ser Arg
115 120 125
Met Val Lys Lys Met Lys Lys Arg Ile Cys Leu Val Leu Asp Cys Leu
130 135 140
Cys Ala His Asp Phe Ser Asp Lys Thr Ala Asp Leu Ile Asn Leu Gln
145 150 155 160
His Tyr Val Ile Lys Glu Lys Arg Leu Ser Glu Arg Glu Thr Val Val
165 170 175
Ile Phe Tyr Asp Val Val Arg Val Val Glu Ala Leu His Gln Lys Asn
180 185 190
Ile Val His Arg Asp Leu Lys Leu Gly Asn Met Val Leu Asn Lys Arg
195 200 205
Thr His Arg Ile Thr Ile Thr Asn Phe Cys Leu Gly Lys His Leu Val
210 215 220
Ser Glu Gly Asp Leu Leu Lys Asp Gln Arg Gly Ser Pro Ala Tyr Ile
225 230 235 240
Ser Pro Asp Val Leu Ser Gly Arg Pro Tyr Arg Gly Lys Pro Ser Asp
245 250 255
Met Trp Ala Leu Gly Val Val Leu Phe Thr Met Leu Tyr Gly Gln Phe
260 265 270
Pro Phe Tyr Asp Ser Ile Pro Gln Glu Leu Phe Arg Lys Ile Lys Ala
275 280 285
Ala Glu Tyr Thr Ile Pro Glu Asp Gly Arg Val Ser Glu Asn Thr Val
290 295 300
Cys Leu Ile Arg
305

<210> 3343
<211> 594
<212> DNA
<213> Homo sapiens

<400> 3343
cgcgatcatga gccaccgcat ggaggggtgct ggccagctgc ccgcctccta ccggcacaac
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cggcctctcc tcagcggcgt gactgacacc gaggcgcgcc agccggggaa gtcgcccccc
120
ttcagcatga actgggtcgt gggcagcgcg gacctggaga ttatcaacgc caccactggg
180
cggaggagct gtggggggccc atccccggctc tgcaagcacg tgctgtctgc acgggtggcg
240
cggctgtatg gcaggctgag cacacggaca cccagccctg gagacacgcc ctccatgtac
300
tgtgaggcca agctgggggc gcacacctac cagtctgtga aacagcagct gttcaaggcc
360
tttcagaagg ctggcctggg cacctgggtg aggaaccac cggagcagca gcagtttcta
420
ctgactctct aggctgcggg ctccctggctg ctggagctga gcgggacgct ggagggatgg
480
gaccgtgtct gggggggcgc gtggcgggtc ggccgggttc ctgcattcgt tttactttgg
540
tgtcccagaa acacgcgagt gtgcaatgtt tggacgagca acaaaaaaaaa aaaa
594

<210> 3344
<211> 143
<212> PRT
<213> Homo sapiens

<400> 3344
Arg Val Met Ser His Arg Met Glu Gly Val Gly Gln Leu Pro Ala Ser
1 5 10 15
Tyr Arg His Asn Arg Pro Leu Leu Ser Gly Val Ser Asp Thr Glu Ala
20 25 30
Arg Gln Pro Gly Lys Ser Pro Pro Phe Ser Met Asn Trp Val Val Gly
35 40 45
Ser Ala Asp Leu Glu Ile Ile Asn Ala Thr Thr Gly Arg Arg Ser Cys
50 55 60
Gly Gly Pro Ser Arg Leu Cys Lys His Val Leu Ser Ala Arg Trp Ala
65 70 75 80
Arg Leu Tyr Gly Arg Leu Ser Thr Arg Thr Pro Ser Pro Gly Asp Thr
85 90 95
Pro Ser Met Tyr Cys Glu Ala Lys Leu Gly Ala His Thr Tyr Gln Ser
100 105 110
Val Lys Gln Gln Leu Phe Lys Ala Phe Gln Lys Ala Gly Leu Gly Thr
115 120 125
Trp Val Arg Lys Pro Pro Glu Gln Gln Gln Phe Leu Leu Thr Leu
130 135 140

<210> 3345
<211> 1149
<212> DNA
<213> Homo sapiens

<400> 3345
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tgggagggcag ggagcttggg cccctcagat gggccacgtg ccctcgtggg accctcattg
120
tcaccgtgag ctctttccaa ggggacgccca ccagtggggg cctgggcagg aggcagctga
180
ggtgtttcag gaaaaggctg aagatcaagg ctgtggtgtg aggactaccc actttagggg
240
agtgaagag gccagcctca cccagacac ccagtgtgg ttggggaaag ggggtggtcc
300
gtggtgagcc tggtagctgg ggactcatcc tggccctgcc tggccctcag gtgggatgct
360
atggaatatg atgagaagct ggcccgtttc cggcaggccc acctcaaccc cttcaacaag
420
cagtctgggc cgagacagca tgagcagggc cctggggagg aggtcccgga cgtcactcct
480
gaagagggccc tgccctgagct gcccctggg gagccggaat tccgctgccc tgaacgcgtg
540
atggatctcg gcctgtctga ggaccacttc tcccgcctg tgggtctgtt cctggcctct
600
gacgtccagc agctgaggca ggcgatcgag gagtgaagc aggtgattct ggagctgccc
660

gagcagtcgg agaagcagaa ggatgccgtg gtgcgactca tccacctccg gctgaagctc
720
caggagctga aggaccccaa tgaggatgag ccaaaccatcc gagtgctcct tgagcaccgc
780
ttttacaagg agaagagcaa gagcgtcaag cagacctgtg acaagtgtaa caccatcatc
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960
gaactgaaca tctgccctga gacagggctg gacagccagg attaccgctg tgccgagtgc
1020
cgggcgccca tctctctgcg ggggtgtgcc agtgaggcca ggcagtgcga ctataccggc
1080
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1140
tgctcgcca
1149

<210> 3346
<211> 263
<212> PRT
<213> Homo sapiens

<400> 3346
Met Glu Tyr Asp Glu Lys Leu Ala Arg Phe Arg Gln Ala His Leu Asn
1 5 10 15
Pro Phe Asn Lys Gln Ser Gly Pro Arg Gln His Glu Gln Gly Pro Gly
20 25 30
Glu Glu Val Pro Asp Val Thr Pro Glu Glu Ala Leu Pro Glu Leu Pro
35 40 45
Pro Gly Glu Pro Glu Phe Arg Cys Pro Glu Arg Val Met Asp Leu Gly
50 55 60
Leu Ser Glu Asp His Phe Ser Arg Pro Val Gly Leu Phe Leu Ala Ser
65 70 75 80
Asp Val Gln Gln Leu Arg Gln Ala Ile Glu Glu Cys Lys Gln Val Ile
85 90 95
Leu Glu Leu Pro Glu Gln Ser Glu Lys Gln Lys Asp Ala Val Val Arg
100 105 110
Leu Ile His Leu Arg Leu Lys Leu Gln Glu Leu Lys Asp Pro Asn Glu
115 120 125
Asp Glu Pro Asn Ile Arg Val Leu Leu Glu His Arg Phe Tyr Lys Glu
130 135 140
Lys Ser Lys Ser Val Lys Gln Thr Cys Asp Lys Cys Asn Thr Ile Ile
145 150 155 160
Trp Gly Leu Ile Gln Thr Trp Tyr Thr Cys Thr Gly Cys Tyr Tyr Arg
165 170 175
Cys His Ser Lys Cys Leu Asn Leu Ile Ser Lys Pro Cys Val Ser Ser
180 185 190
Lys Val Ser His Gln Ala Glu Tyr Glu Leu Asn Ile Cys Pro Glu Thr
195 200 205
Gly Leu Asp Ser Gln Asp Tyr Arg Cys Ala Glu Cys Arg Ala Pro Ile
210 215 220
Ser Leu Arg Gly Val Pro Ser Glu Ala Arg Gln Cys Asp Tyr Thr Gly

225 230 235 240
Gln Tyr Tyr Cys Ser His Cys His Trp Asn Asp Leu Ala Val Ile Pro
 245 250 255
Glu Ala Gly Val Cys Ser Arg
 260

<210> 3347
<211> 2267
<212> DNA
<213> Homo sapiens

<400> 3347
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acgctatgtc ctttttgctt cgagggtttac cccttccagg tggcatggta caatgaactc
120
ttgcctccag ccttccacct accgctgccca ggacctaccc tggccttctt ggtactcagc
180
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240
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300
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360
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420
gtggaggctg acccatgggg gaaccagcgc atatcagggtg tgtgcataca ccccgattt
480
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540
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600
ggcttcaatt tccactggcg tgattggact taccgggatg ctgtgacacc ccaggagcgc
660
tactcagaag agcagaaggc ctacttctcc actccacctg cccaacgatt ggccctattg
720
ggcttggctc agccctcaga gaagcctagt tctccctccc cggaccttcc ctttaccaca
780
cccgccecca agaagcctgg gaatcccagc agagcccgga gctggctcag cccagggtc
840
tcaccacctg catcccctgg cccttgattt tctcccatgt ggacctgat ttatggtggt
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960
tttgataata tagtagagat cttccatgaa gataacaagg ctcaagggaag ttaggtttgg
1020
ccaagataaa ggccagggaa ccagaattcc catctgcctt caaatgagtt tttttttttt
1080
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1140
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1200
gagattgcag tgagccgaga ttgcatggct gcactctagc ctgggtgaca gtgtgagact
1260

ctgtctcaaa agaaaaaaaa gtacctgcct caggtaggga ctgaataaac acgtgtaagg
1320
cactttggaa aaatacctgg catatatagt aagcagtatg ttggccatta cgaaaggccc
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1440
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1560
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1620
cacctgtaat cccaccattt tgggaggctg aggcggagga ccacctgagg caaggaatc
1680
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1740
caagggaagg ctaagaattg cccagtactg tgcaactact gaaagcccta cccaaggcca
1800
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2040
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2100
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2160
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2220
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2267
<210> 3348
<211> 288
<212> PRT
<213> Homo sapiens

<400> 3348
Arg Cys Val Thr Cys Ala Met Glu Pro Lys Val Ala Glu Leu Lys Gln
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Lys Ile Glu Asp Thr Leu Cys Pro Phe Gly Phe Glu Val Tyr Pro Phe
20 25 30
Gln Val Ala Trp Tyr Asn Glu Leu Leu Pro Pro Ala Phe His Leu Pro
35 40 45
Leu Pro Gly Pro Thr Leu Ala Phe Leu Val Leu Ser Thr Pro Ala Met
50 55 60
Phe Asp Arg Ala Leu Lys Pro Phe Leu Gln Ser Cys His Leu Arg Met
65 70 75 80
Leu Thr Asp Pro Val Asp Gln Cys Val Ala Tyr His Leu Gly Arg Val
85 90 95
Gly Glu Ser Leu Pro Glu Leu Gln Ile Glu Ile Ile Ala Asp Tyr Glu
100 105 110

Val His Pro Asn Arg Arg Pro Lys Ile Leu Ala Gln Thr Ala Ala His
 115 120 125
 Val Ala Gly Ala Ala Tyr Tyr Tyr Gln Arg Gln Asp Val Glu Ala Asp
 130 135 140
 Pro Trp Gly Asn Gln Arg Ile Ser Gly Val Cys Ile His Pro Arg Phe
 145 150 155 160
 Gly Gly Trp Phe Ala Ile Arg Gly Val Val Leu Leu Pro Gly Ile Glu
 165 170 175
 Val Pro Asp Leu Pro Pro Arg Lys Pro His Asp Cys Val Pro Thr Arg
 180 185 190
 Ala Asp Arg Ile Ala Leu Leu Glu Gly Phe Asn Phe His Trp Arg Asp
 195 200 205
 Trp Thr Tyr Arg Asp Ala Val Thr Pro Gln Glu Arg Tyr Ser Glu Glu
 210 215 220
 Gln Lys Ala Tyr Phe Ser Thr Pro Pro Ala Gln Arg Leu Ala Leu Leu
 225 230 235 240
 Gly Leu Ala Gln Pro Ser Glu Lys Pro Ser Ser Pro Ser Pro Asp Leu
 245 250 255
 Pro Phe Thr Thr Pro Ala Pro Lys Lys Pro Gly Asn Pro Ser Arg Ala
 260 265 270
 Arg Ser Trp Leu Ser Pro Arg Val Ser Pro Pro Ala Ser Pro Gly Pro
 275 280 285

<210> 3349

<211> 1132

<212> DNA

<213> Homo sapiens

<400> 3349

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 ccggaagccg cgcctgcacc ggcgacatcg cgtctataag ctggtggagg acacgaagca
 120
 tcggcccaaa gaaaacctgg agctcattcct gacgcagtcg gtggagagta agggccgggc
 180
 cgaggcgctt cctctcaggc tgatgttgga gtccggggtg acctggtctc agtgaagaaa
 240
 tctttaggcc ggaatcgact ccttccctcag ggactggctg tatatgcac ccctgaaaac
 300
 aagaagctgt ttgaagagga gaaattgctg agacaagaag gaaaattaga gaagatccag
 360
 accaaggcag gtgaggcgac agtgaaattt ctaaaaagct gtcgcctgga ggtagggatg
 420
 aagaacaatg tcaaatggga gctgaacct gaaatagttg cccgccactt ctttaagaat
 480
 cttggtgttg tgggtgcccc acatacatta aagttaccag cagagcctat cacacggtgg
 540
 ggcgagtatt ggtgtgaggt gacggtaaag gggcttgata ctgtgagagt gcctatgtct
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 gtcgtgaact ttgagaagcc caagacaaa agatataagt actggttagc ccagcaagct
 660
 gccaaaggcta tggccccac cagccccag atctaaatct actctccctc caaggcagca
 720

aagcagaatc gggagcagtg gagcagaaat gtgcaagcac cctgatctca ctcccagctc
780
tgaccaaata cagaatttta gagaacatct gaagacatca gactgcactg cgtatacatg
840
ttgaattctt catttttgcc atctttaact gtcactactg gggcagggaa gtcctgttcc
900
agaagtacca ggctgtagat ttgataagct agatgcagta gaccgaaacc atccaaaacc
960
tgtttagctt cttctcccat tggagtttat tgggacaaac aggagagcca gccattgtct
1020
ccagtacttg cctcattctc atcatccaaa ctgaacattt gtatcccaag cagaaataaa
1080
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1132

<210> 3350
<211> 174
<212> PRT
<213> Homo sapiens

<400> 3350
Gly Pro Gly Arg Gly Ala Ser Ser Gln Ala Asp Val Gly Val Arg Gly
1 5 10 15
Asp Leu Val Ser Val Lys Lys Ser Leu Gly Arg Asn Arg Leu Leu Pro
20 25 30
Gln Gly Leu Ala Val Tyr Ala Ser Pro Glu Asn Lys Lys Leu Phe Glu
35 40 45
Glu Glu Lys Leu Leu Arg Gln Glu Gly Lys Leu Glu Lys Ile Gln Thr
50 55 60
Lys Ala Gly Glu Ala Thr Val Lys Phe Leu Lys Ser Cys Arg Leu Glu
65 70 75 80
Val Gly Met Lys Asn Asn Val Lys Trp Glu Leu Asn Pro Glu Ile Val
85 90 95
Ala Arg His Phe Phe Lys Asn Leu Gly Val Val Val Ala Pro His Thr
100 105 110
Leu Lys Leu Pro Ala Glu Pro Ile Thr Arg Trp Gly Glu Tyr Trp Cys
115 120 125
Glu Val Thr Val Asn Gly Leu Asp Thr Val Arg Val Pro Met Ser Val
130 135 140
Val Asn Phe Glu Lys Pro Lys Thr Lys Arg Tyr Lys Tyr Trp Leu Ala
145 150 155 160
Gln Gln Ala Ala Lys Ala Met Ala Pro Thr Ser Pro Gln Ile
165 170

<210> 3351
<211> 1422
<212> DNA
<213> Homo sapiens

<400> 3351
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cttgaggaat actccatacc tgagtagaca gccatgtggc catcgagct actaattttc
120

atgatgctct tagctccaat aattcatggt ggcaagcaca gtgaacgaca tcctgccctc
180
gctgctgcgc cgcgatgcgc tgagcgccgc caaggagggtg ttgtaccacc tggacatcta
240
cttcagcagc cagctgcaga gcgcgccgct gcccatcgtg gacaagggcc ccgtggagct
300
gctggaggag ttcgtgttcc aggtgcccaa ggagcgcagc gcgcagccca agagactgaa
360
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420
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480
tgacagccgg atgagcttgt tgggaaaact ggtctccatg gcggtggctg tgtgtcgaat
540
cccgggtgtg gagtgtgctg cctcctggct tcagcggacg cccgtgggtt actgtgtgag
600
gttagccaag gccctttag atgactactg ctgtttgggtg ccgggatcca ttcagacgct
660
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720
gctctatgac ctgtcatcag atgacctcat tccacctatg gacttgcttg aaatgattgt
780
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840
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960
cagcaacaag gtcacaaagg acccgggcgt ggggatggac agagactccc acctcttgta
1020
ctcaaaactc cacctcagcg tcctgcaagt gtcctgacg ctgcagctgc acctgaccga
1080
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1140
ggagatcaac aggttggcgg atgaactgaa cccctcaac gcctcccagg agattgagct
1200
ctcgtggac cggctggcgc aggtctctgca ggtggccatg gcctcaggag ctctgctgtg
1260
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1320
ggtgatctcg ggtcccgtgc agcagtcgcc tcacgcgcgc ctccccccgg ggttctaccc
1380
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1422

<210> 3352
<211> 97
<212> PRT
<213> Homo sapiens

<400> 3352
Met Trp Pro Ser Gln Leu Leu Ile Phe Met Met Leu Leu Ala Pro Ile
1 5 10 15
Ile His Gly Gly Lys His Ser Glu Arg His Pro Ala Leu Ala Ala Ala

20 25 30
Pro Arg Cys Ala Glu Arg Arg Gln Gly Gly Val Val Pro Pro Gly His
35 40 45
Leu Leu Gln Gln Pro Ala Ala Glu Arg Ala Ala Ala His Arg Gly Gln
50 55 60
Gly Pro Arg Gly Ala Ala Gly Gly Val Arg Val Pro Gly Ala Gln Gly
65 70 75 80
Ala Gln Arg Ala Ala Gln Glu Thr Glu Phe Pro Ser Gly Ala Ser Thr
85 90 95
Ser

<210> 3353
<211> 420
<212> DNA
<213> Homo sapiens

<400> 3353
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tttccatctc ctgaccagcc tgccaatgtg cctgtcctcc cacctgccat gaacacgggg
120
ggctccctac ctgacctcac caacctgcac ttccccccac cactgccac cccctggac
180
cctgaagaga cagcctaccc tagcctgagt gggggcaaca gtacctcaa ttgaccac
240
accatgactc acctgggcat cagcaggggc atgggcctgg gccaggcta tgatgcacca
300
gggcgtcccc ctggatacca gtaactgtc cactgaccag cggttacccc cataccata
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420

<210> 3354
<211> 107
<212> PRT
<213> Homo sapiens

<400> 3354
Xaa Lys Leu Ser Ser Ser Ser Arg Pro Arg Ser Cys Glu Val Pro
1 5 10 15
Gly Ile Asn Ile Phe Pro Ser Pro Asp Gln Pro Ala Asn Val Pro Val
20 25 30
Leu Pro Pro Ala Met Asn Thr Gly Gly Ser Leu Pro Asp Leu Thr Asn
35 40 45
Leu His Phe Pro Pro Pro Leu Pro Thr Pro Leu Asp Pro Glu Glu Thr
50 55 60
Ala Tyr Pro Ser Leu Ser Gly Gly Asn Ser Thr Ser Asn Leu Thr His
65 70 75 80
Thr Met Thr His Leu Gly Ile Ser Arg Gly Met Gly Leu Gly Pro Gly
85 90 95
Tyr Asp Ala Pro Gly Arg Pro Pro Gly Tyr Gln
100 105

<210> 3355
<211> 474
<212> DNA
<213> Homo sapiens

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gtaagattat ctccagccaa aatgtcaacc aagaattcta cagatctagt tgaatatgtt
120
gacaagagtc atgcttttct ccccatcatt ccaaacaccc agagaggtca gctagaagac
180
agactgaaca accaggcgcg taccatagct ttccttcttg aacaagcctt ccgcatcaag
240
gaggacatct ctgcttgctt gcaggggacc catggctttc gaaaagagga atcgctcgcc
300
aggaagttac tggaaagcca catccagacc atcaccagca tcgtcaaaaa actcagccaa
360
aatattgaga ttttagaaga ccaaataaga gctcgagatc aggcggccac aggaactaac
420
tttgcagtac acgagataaa catcaaacac ctacaaggag ttgggagatc tttc
474

<210> 3356
<211> 131
<212> PRT
<213> Homo sapiens

<400> 3356
Met Ser Thr Lys Asn Ser Thr Asp Leu Val Glu Tyr Val Asp Lys Ser
1 5 10 15
His Ala Phe Leu Pro Ile Ile Pro Asn Thr Gln Arg Gly Gln Leu Glu
20 25 30
Asp Arg Leu Asn Asn Gln Ala Arg Thr Ile Ala Phe Leu Leu Glu Gln
35 40 45
Ala Phe Arg Ile Lys Glu Asp Ile Ser Ala Cys Leu Gln Gly Thr His
50 55 60
Gly Phe Arg Lys Glu Glu Ser Leu Ala Arg Lys Leu Leu Glu Ser His
65 70 75 80
Ile Gln Thr Ile Thr Ser Ile Val Lys Lys Leu Ser Gln Asn Ile Glu
85 90 95
Ile Leu Glu Asp Gln Ile Arg Ala Arg Asp Gln Ala Ala Thr Gly Thr
100 105 110
Asn Phe Ala Val His Glu Ile Asn Ile Lys His Leu Gln Gly Val Gly
115 120 125
Arg Ser Phe
130

<210> 3357
<211> 2268
<212> DNA
<213> Homo sapiens

<400> 3357

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120
agggcctata aaaataattc cttcttgctt acaaagttca gcaaattcca tgttttctga
180
aagaaaaccg catcctggat ggatagcctg tgcagcagag gtcttggcca cttgaatgat
240
tttctccata gataggtagc tctgctggga ggaacgggtt tggcgtgtgg gacgcagctg
300
cctctgtact ggggagtcac ggagtggccg ggctccaggg acatggcggc ggctctgctg
360
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420
ctgccgccga ggacatgggt gtggaggcaa agaaccatga agtacacaac agccacagga
480
agaaacatta ccaaggctct cattgcaaac agaggagaaa ttgcctgcag ggtgatgcgc
540
acagccaaaa aactgggtgt acagactgtg gcggtttata gtgaggctga cagaaattcc
600
atgcatgtag atatggcaga tgaagcatat tccatcggcc ccgctccctc ccagcagagc
660
tacctatcta tggagaaaaat cattcaagtg gccaaagacct ctgctgcaca ggctatccat
720
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780
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840
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900
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960
gtccgggggtg gaggaggaaa aggaatgagg attgttagat cagaacaaga atttcaagaa
1020
cagttagagt cagcacggag agaagctaag aagtctttca atgatgatgc tatgctgatc
1080
gagaagtttg tagacacacc gaggcagtga gaagtcagg tgtttggtga tcaccatggc
1140
aatgctgtgt acttgtttga aagagactgt agtgtgcaga ggcgacatca gaagatcatt
1200
gaggaggccc cagcgcttg tattaaatct gaagtaagaa aaaagctggg agaagctgca
1260
gtcagagctg ctaaagctgt aaattatgtt ggagcagggc ctgtggagtt tattatggac
1320
tcaaaacata atttctgttt catggagatg aatacaaggc tgcaagtggg acatcctgtt
1380
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1440
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1560
actcctcgag cagaccttc caccaggatt gaaactggag tacggcaagg agacgaagtt
1620

tccgtgcatt atgaccccat gattgcgaag ctggctcgtgt gggcagcaga tcgccaggcg
1680
gcattgacaa aactgaggta cagccttcgt cagtacaata ttgttggact gcacaccaac
1740
attgacttct tactcaacct gtctggccac ccagagtttg aagctgggaa cgtgcacact
1800
gatttcaccc ctcaacacca caaacagttg ttgctcagtc ggaaggctgc agccaaagag
1860
tctttatgcc aggcagccct gggctctcgc ctcaaggaga aagccatgac cgacactttc
1920
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1980
atctcgtata ccagaaacat gactcttaaa gatggtaaaa acagttttcg tctctcggga
2040
taatcaacca tttccatact catgtaatct aggcatactc tggagttatt acagggttgg
2100
ttccagacca ctacaataaa atgtagccat agctgtaacg tataaccatg atgggtctta
2160
tagcatgcag attgaagata aaactttcca agtccttggt aatctttaca gcgagggaga
2220
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2268

<210> 3358
<211> 493
<212> PRT
<213> Homo sapiens

<400> 3358
Gln Thr Val Ala Val Tyr Ser Glu Ala Asp Arg Asn Ser Met His Val
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Asp Met Ala Asp Glu Ala Tyr Ser Ile Gly Pro Ala Pro Ser Gln Gln
20 25 30
Ser Tyr Leu Ser Met Glu Lys Ile Ile Gln Val Ala Lys Thr Ser Ala
35 40 45
Ala Gln Ala Ile His Pro Gly Cys Gly Phe Leu Ser Glu Asn Met Glu
50 55 60
Phe Ala Glu Leu Cys Lys Gln Glu Gly Ile Ile Phe Ile Gly Pro Pro
65 70 75 80
Pro Ser Ala Ile Arg Asp Met Gly Ile Lys Ser Thr Ser Lys Ser Ile
85 90 95
Met Ala Ala Ala Gly Val Pro Val Val Glu Gly Tyr His Gly Glu Asp
100 105 110
Gln Ser Asp Gln Cys Leu Lys Glu His Ala Arg Arg Ile Gly Tyr Pro
115 120 125
Val Met Ile Lys Ala Val Arg Gly Gly Gly Gly Lys Gly Met Arg Ile
130 135 140
Val Arg Ser Glu Gln Glu Phe Gln Glu Gln Leu Glu Ser Ala Arg Arg
145 150 155 160
Glu Ala Lys Lys Ser Phe Asn Asp Asp Ala Met Leu Ile Glu Lys Phe
165 170 175
Val Asp Thr Pro Arg His Val Glu Val Gln Val Phe Gly Asp His His
180 185 190
Gly Asn Ala Val Tyr Leu Phe Glu Arg Asp Cys Ser Val Gln Arg Arg

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      195      200      205
His Gln Lys Ile Ile Glu Glu Ala Pro Ala Pro Gly Ile Lys Ser Glu
 210      215      220
Val Arg Lys Lys Leu Gly Glu Ala Ala Val Arg Ala Ala Lys Ala Val
 225      230      235      240
Asn Tyr Val Gly Ala Gly Thr Val Glu Phe Ile Met Asp Ser Lys His
      245      250      255
Asn Phe Cys Phe Met Glu Met Asn Thr Arg Leu Gln Val Glu His Pro
      260      265      270
Val Thr Glu Met Ile Thr Gly Thr Asp Leu Val Glu Trp Gln Leu Arg
      275      280      285
Ile Ala Ala Gly Glu Lys Ile Pro Leu Ser Gln Glu Glu Ile Thr Leu
      290      295      300
Gln Gly His Ala Phe Glu Ala Arg Ile Tyr Ala Glu Asp Pro Ser Asn
 305      310      315      320
Asn Phe Met Pro Val Ala Gly Pro Leu Val His Leu Ser Thr Pro Arg
      325      330      335
Ala Asp Pro Ser Thr Arg Ile Glu Thr Gly Val Arg Gln Gly Asp Glu
      340      345      350
Val Ser Val His Tyr Asp Pro Met Ile Ala Lys Leu Val Val Trp Ala
      355      360      365
Ala Asp Arg Gln Ala Ala Leu Thr Lys Leu Arg Tyr Ser Leu Arg Gln
      370      375      380
Tyr Asn Ile Val Gly Leu His Thr Asn Ile Asp Phe Leu Leu Asn Leu
 385      390      395      400
Ser Gly His Pro Glu Phe Glu Ala Gly Asn Val His Thr Asp Phe Ile
      405      410      415
Pro Gln His His Lys Gln Leu Leu Leu Ser Arg Lys Ala Ala Ala Lys
      420      425      430
Glu Ser Leu Cys Gln Ala Ala Leu Gly Leu Ile Leu Lys Glu Lys Ala
      435      440      445
Met Thr Asp Thr Phe Thr Leu Gln Ala His Asp Gln Phe Ser Pro Phe
      450      455      460
Ser Ser Ser Ser Gly Arg Arg Leu Asn Ile Ser Tyr Thr Arg Asn Met
 465      470      475      480
Thr Leu Lys Asp Gly Lys Asn Ser Phe Arg Leu Leu Gly
      485      490

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<210> 3359
 <211> 652
 <212> DNA
 <213> Homo sapiens

<400> 3359
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 120
 ggctagacag ttactgtctc agctctagga tgtgcgttct tccactagaa gctcttctga
 180
 gggaggtaat taaaaaacag tggaatggaa aaacagtgc gtagtcatcc tgtaatatgc
 240
 tccttgtaa caatgtatac attcctgcta ggtgccatat tcattgcttt aagctcaagt
 300

cgcattcttac tagtgaagta ttctgccaat gaagaaaaca agtatgatta tcttccaact
360
actgtgaatg tgtgtcaga actggtgaag ctagttttct gtgtgcttgt gtcattctgt
420
gttataaaga aagatcatca aagtagaat ttgaaatatg cttcctggaa ggaattctct
480
gatttcatga agtgggccat tcctgccttt ctttatttcc tggataactt gattgtcttc
540
tatgtcctgt cctatcttca accagccatg gctgttatct tctcaaattt tagcattata
600
acaacagctc ttctattcag gatagtgtg aagaggcgtc taaactggat cc
652

<210> 3360

<211> 149

<212> PRT

<213> Homo sapiens

<400> 3360

Met Glu Lys Gln Cys Cys Ser His Pro Val Ile Cys Ser Leu Ser Thr
1 5 10 15
Met Tyr Thr Phe Leu Leu Gly Ala Ile Phe Ile Ala Leu Ser Ser Ser
20 25 30
Arg Ile Leu Leu Val Lys Tyr Ser Ala Asn Glu Glu Asn Lys Tyr Asp
35 40 45
Tyr Leu Pro Thr Thr Val Asn Val Cys Ser Glu Leu Val Lys Leu Val
50 55 60
Phe Cys Val Leu Val Ser Phe Cys Val Ile Lys Lys Asp His Gln Ser
65 70 75 80
Arg Asn Leu Lys Tyr Ala Ser Trp Lys Glu Phe Ser Asp Phe Met Lys
85 90 95
Trp Ser Ile Pro Ala Phe Leu Tyr Phe Leu Asp Asn Leu Ile Val Phe
100 105 110
Tyr Val Leu Ser Tyr Leu Gln Pro Ala Met Ala Val Ile Phe Ser Asn
115 120 125
Phe Ser Ile Ile Thr Thr Ala Leu Leu Phe Arg Ile Val Leu Lys Arg
130 135 140
Arg Leu Asn Trp Ile
145

<210> 3361

<211> 1040

<212> DNA

<213> Homo sapiens

<400> 3361

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gacggggcgac ccggacccaa gaagtgggag gaccgcgcgt gtcgcggcct agcggcgagg
120
ggagtcgcct gcgcgcgcag cggaggccag tgcgcggcg catagcgagc ccgggtctgt
180
gatcgccgag gcgggagtg agatagtcca agtcctaaga gacagcgccct ctctcattca
240

gtctttgatt atacatcagc atcaccagct ccctcaccac caatgcgacc atgggagatg
300
acatcaaata ggcagccccc ttcagttcga ccaagccaac atcactttctc aggggaacga
360
tgcaacacac ctgcacgcaa cagaagaagt cctcctgtca ggcgccagag aggaagaagg
420
gatcgtctgt ctgcacataa ttccattagt caagatgaaa actatcacca tctcccttac
480
gcacagcagc aagcaataga ggagcctega gccttccacc ctccgaatgt atctccccgt
540
ctgtctacatc ctgctgtcga tccaccccag cagaatgcag tcatgggtga catacatgat
600
cagctccatc aaggaacagt ccctgtttct tacacagtaa caacagtggc accacatggg
660
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720
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780
gcattgttcag ttcagcactt accagtacca tatgctgcat tcccacctt tatttctagt
840
gatccatttc ttatacatcc tctcacctt tctccccatc atcctctca ttgcccacca
900
ccaggccagt ttgtcccttt ccaaacacag caatcacgat cgcctctgca aaggatagaa
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1020
ttaataaata tctcaactcc
1040

<210> 3362
<211> 252
<212> PRT
<213> Homo sapiens

<400> 3362
Met Arg Pro Trp Glu Met Thr Ser Asn Arg Gln Pro Pro Ser Val Arg
1 5 10 15
Pro Ser Gln His His Phe Ser Gly Glu Arg Cys Asn Thr Pro Ala Arg
20 25 30
Asn Arg Arg Ser Pro Pro Val Arg Arg Gln Arg Gly Arg Arg Asp Arg
35 40 45
Leu Ser Arg His Asn Ser Ile Ser Gln Asp Glu Asn Tyr His His Leu
50 55 60
Pro Tyr Ala Gln Gln Gln Ala Ile Glu Glu Pro Arg Ala Phe His Pro
65 70 75 80
Pro Asn Val Ser Pro Arg Leu Leu His Pro Ala Ala His Pro Pro Gln
85 90 95
Gln Asn Ala Val Met Val Asp Ile His Asp Gln Leu His Gln Gly Thr
100 105 110
Val Pro Val Ser Tyr Thr Val Thr Thr Val Ala Pro His Gly Ile Pro
115 120 125
Leu Cys Thr Gly Gln His Ile Pro Ala Cys Ser Thr Gln Gln Val Pro
130 135 140
Gly Cys Ser Val Val Phe Ser Gly Gln His Leu Pro Val Cys Ser Val

145 150 155 160
 Pro Pro Pro Met Leu Gln Ala Cys Ser Val Gln His Leu Pro Val Pro
 165 170 175
 Tyr Ala Ala Phe Pro Pro Leu Ile Ser Ser Asp Pro Phe Leu Ile His
 180 185 190
 Pro Pro His Leu Ser Pro His His Pro Pro His Leu Pro Pro Pro Gly
 195 200 205
 Gln Phe Val Pro Phe Gln Thr Gln Gln Ser Arg Ser Pro Leu Gln Arg
 210 215 220
 Ile Glu Asn Glu Val Glu Leu Leu Gly Glu His Leu Pro Gly Ala His
 225 230 235 240
 Pro Gln His Pro His Leu Leu Ile Asn Ile Ser Thr
 245 250

<210> 3363
 <211> 718
 <212> DNA
 <213> Homo sapiens

<400> 3363
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 gtagctcagg agtgtctccg gagcccaactg gagaagcccc ccaacggcct cctcttcccc
 180
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 240
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 300
 aggaccagac tgttggtgac tccttccccg gccccacag cagtatcaga aacttctgac
 360
 aatcagtgaa tgtacaaccc agccgagggg acggtgcata actctccatc agaagccctg
 420
 ggggttcctg cccccgtga gccgcaggag gatgcgttgc ctgcagtgc gacggccgtg
 480
 agctctgggc aaacctaaac agagaccagt gtcccatgct ctttcttctt ggagcctgtc
 540
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 600
 ttecccaagc agtgtagctc agagcacttg tgtctgcatt ccagataaca ttcaggacct
 660
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 718

<210> 3364
 <211> 163
 <212> PRT
 <213> Homo sapiens

<400> 3364
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 Ala Leu Gln Ala Thr His Pro Pro Ala Ala His Gly Gly Pro Gly Thr

20 25 30
Pro Gly Leu Leu Met Glu Ser Tyr Ala Pro Ser Pro Arg Leu Gly Cys
35 40 45
Thr Phe Thr Asp Cys Gln Lys Phe Leu Ile Leu Leu Trp Gly Pro Gly
50 55 60
Lys Glu Ser Pro Thr Val Trp Ser Cys Pro Leu Asp Ser Thr His His
65 70 75 80
Ser Gly Ser Asn Cys Thr Ser Leu Gly Ser Ser Ala Gly Cys Ile Gly
85 90 95
Ser Gly Leu Phe Arg Cys Cys Cys Gly Arg Thr Asp Ser Pro Arg Ala
100 105 110
Gly Gly Arg Gly Gly Arg Trp Gly Ala Ser Pro Val Gly Ser Gly Asp
115 120 125
Thr Pro Glu Leu Leu Gly Arg Gln Cys His Pro Lys Asn His Gly His
130 135 140
Asp Gly Val Pro Asp His Ala Gly Gln Pro Ile Pro His His Gln Arg
145 150 155 160
Ser Trp Ala

<210> 3365
<211> 2389
<212> DNA
<213> Homo sapiens

<400> 3365
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<210> 3366

<211> 624
<212> PRT
<213> Homo sapiens

<400> 3366

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Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
35 40 45
Asn Asn Ala Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
50 55 60
Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
65 70 75 80
Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
85 90 95
Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
100 105 110
Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
115 120 125
Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
130 135 140
Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
145 150 155 160
Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
165 170 175
Thr Leu Gln Lys Tyr Phe Asp Ala Cys Ala Asp Ala Val Ser Lys Asp
180 185 190
Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
195 200 205
Thr Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys
210 215 220
Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
225 230 235 240
Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
245 250 255
Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser
260 265 270
Trp Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu
275 280 285
Glu Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe
290 295 300
Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
305 310 315 320
Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
325 330 335
Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser
340 345 350
Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
355 360 365
Gln Lys Pro Tyr Ser Arg Ser Ser Ser Met Ser Ser Ile Asp Leu Val
370 375 380
Ser Ala Ser Asp Asp Val His Arg Phe Ser Ser Gln Val Glu Glu Met

385		390		395		400
Val	Gln	Asn	His	Met	Thr	Tyr
		405		410		415
Asn	Trp	Gln	Leu	Val	Val	Glu
		420		425		430
Glu	Val	Glu	Asn	Gly	Ile	Val
		435		440		445
Ala	Val	Lys	Gly	Val	Thr	Gly
		450		455		460
Val	Asp	Val	Arg	Asn	Asp	Trp
		465		470		475
Val	Glu	Thr	Leu	Ala	Asp	Asn
		485		490		495
Arg	Val	Trp	Pro	Ala	Ser	Gln
		500		505		510
Arg	Lys	Ile	Pro	Ala	Leu	Thr
		515		520		525
Cys	Asn	Phe	Ser	Val	Asp	His
		530		535		540
Val	Arg	Ala	Lys	Ile	Asn	Val
		545		550		555
Pro	Pro	Glu	Gly	Asn	Gln	Glu
		565		570		575
Ile	Thr	Tyr	Val	Ala	Asn	Val
		580		585		590
Val	Leu	Arg	Ala	Val	Ala	Lys
		595		600		605
Phe	Thr	Ser	Tyr	Val	Gln	Glu
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<210> 3367
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 3367
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 240
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 366

<210> 3368
 <211> 104
 <212> PRT

<213> Homo sapiens

<400> 3368

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20 25 30
Lys Asp Val Arg Gly Lys Gly Cys Trp Glu Ser Ile Leu Arg Thr Glu
35 40 45
Gly Gly Val Pro Pro Ala Leu Pro Ser Tyr Trp Trp Arg Lys Glu Val
50 55 60
Leu Gly Ala Pro Gln Leu Arg Ala Pro Arg Arg Pro Val Arg Pro Leu
65 70 75 80
Tyr Thr Pro Pro Asp Pro Asp His Asn Gln Pro Pro Ile Val Leu Leu
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Thr Leu Phe Pro Ser Gly Thr Arg
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<210> 3369

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 3369

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aaggttttat ataatgccaa taaaaatgat gattatgaca acgaggagat cttaacctat
180
gaggaaatgt cactttatca tcagccagca aataggaaga gacctatcat cttgattggt
240
ccacagaact gtggccagaa tgaattgcgt cagaggctca tgaacaaaga aaaggaccgc
300
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600
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720
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780
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900

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<210> 3370

<211> 269

<212> PRT

<213> Homo sapiens

<400> 3370

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			20					25					30		
Lys	Lys	Asn	Lys	Lys	Lys	Arg	Lys	Lys	Val	Leu	Tyr	Asn	Ala	Asn	Lys
		35				40						45			
Asn	Asp	Asp	Tyr	Asp	Asn	Glu	Glu	Ile	Leu	Thr	Tyr	Glu	Glu	Met	Ser
	50				55					60					
Leu	Tyr	His	Gln	Pro	Ala	Asn	Arg	Lys	Arg	Pro	Ile	Ile	Leu	Ile	Gly
65					70				75					80	
Pro	Gln	Asn	Cys	Gly	Gln	Asn	Glu	Leu	Arg	Gln	Arg	Leu	Met	Asn	Lys
			85					90						95	
Glu	Lys	Asp	Arg	Phe	Ala	Ser	Ala	Val	Pro	His	Thr	Thr	Arg	Ser	Arg
			100					105					110		
Arg	Asp	Gln	Glu	Val	Ala	Gly	Arg	Asp	Tyr	His	Phe	Val	Ser	Arg	Gln
	115					120						125			
Ala	Phe	Glu	Ala	Asp	Ile	Ala	Ala	Gly	Lys	Phe	Ile	Glu	His	Gly	Glu
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Phe	Glu	Lys	Asn	Leu	Tyr	Gly	Thr	Ser	Ile	Asp	Ser	Val	Arg	Gln	Val
145				150					155					160	
Ile	Asn	Ser	Gly	Lys	Ile	Cys	Leu	Leu	Ser	Leu	Arg	Thr	Gln	Ser	Leu
			165					170						175	
Lys	Thr	Leu	Arg	Asn	Ser	Asp	Leu	Lys	Pro	Tyr	Ile	Ile	Phe	Ile	Ala
		180					185						190		
Pro	Pro	Ser	Gln	Glu	Arg	Leu	Arg	Ala	Leu	Leu	Ala	Lys	Glu	Gly	Lys
		195				200						205			
Asn	Pro	Lys	Pro	Glu	Glu	Leu	Arg	Glu	Ile	Ile	Glu	Lys	Thr	Arg	Glu
	210					215					220				
Met	Glu	Gln	Asn	Asn	Gly	His	Tyr	Phe	Asp	Thr	Ala	Ile	Val	Asn	Ser

50 55 60
Ser Lys Ala Asp Ile Asn Gly Gln Asn Pro Asn Ile Gln Val Thr Ile
65 70 75 80
Glu Val Val Asp Gly Pro Asp Ser Glu Ala Asp Lys Asp Gln His Pro
85 90 95
Glu Asn Lys Pro Ser Trp Ser Val Pro Ser Pro Asp Trp Arg Ala Trp
100 105 110
Trp Gln Arg Ser Leu Ser Leu Ala Arg Ala Asn Ser Gly Asp Gln Asp
115 120 125
Tyr Lys Tyr Asp Ser Thr Ser Asp Asp Ser Asn Phe Leu Asn Pro Pro
130 135 140
Arg Gly Trp Asp His Thr Ala Pro Gly His Arg Thr Phe Glu Thr Lys
145 150 155 160
Asp Gln Pro Glu Tyr Asp Ser Thr Asp Gly Glu Gly Asp Trp Ser Leu
165 170 175
Trp Ser Val Cys Ser Val Thr Cys Gly Asn Gly Asn Gln Lys Arg Thr
180 185 190
Arg Ser Cys Gly Tyr Ala
195

<210> 3373
<211> 726
<212> DNA
<213> Homo sapiens

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726

<210> 3374

<211> 84
<212> PRT
<213> Homo sapiens

<400> 3374
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Phe His His Gln His Val Leu Ile Ser Arg Phe Leu Cys Leu Lys Asn
20 25 30
Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro
35 40 45
Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile
50 55 60
Trp Phe Leu Leu Leu Ala Val Asp Gly Cys Val Leu Gly Ser Cys Arg
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Gly Arg Gly Leu

<210> 3375
<211> 393
<212> DNA
<213> Homo sapiens

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<210> 3376
<211> 103
<212> PRT
<213> Homo sapiens

<400> 3376
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Pro Glu Pro Pro Ala Trp Ala Leu Gly Ala Gln Pro Ala Trp Gly Ala
35 40 45
Pro Gly Ser Ser Trp Pro Arg Leu Ala Leu Lys Ser Arg Pro Gly Cys
50 55 60
Arg Ala Arg Ser Ala Ala Ser Gly Ala Pro Gly Thr Val Arg Ser Pro

65 70 75 80
His Leu Ala Ala Pro Phe Pro Val Lys Ala Pro Pro Ser Val Leu Ser
 85 90 95
Pro Pro Gly Lys Leu Pro Ala
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<210> 3377
<211> 5235
<212> DNA
<213> Homo sapiens

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<210> 3378

<211> 970

<212> PRT

<213> Homo sapiens

<400> 3378

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Thr	Gln	Ile	Gly	Gln	Tyr	Gly	Asn	Gly	Leu	Lys	Ser	Gly	Ser	Met	Arg
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Ile	Gly	Lys	Asp	Phe	Ile	Leu	Phe	Thr	Lys	Lys	Glu	Asp	Thr	Met	Thr
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Cys	Leu	Phe	Leu	Ser	Arg	Thr	Phe	His	Glu	Glu	Glu	Gly	Ile	Asp	Glu
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Val	Ile	Val	Pro	Leu	Pro	Thr	Trp	Asn	Ala	Arg	Thr	Arg	Glu	Pro	Val
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Thr	Asp	Asn	Val	Glu	Lys	Phe	Ala	Ile	Glu	Thr	Glu	Leu	Ile	Tyr	Lys
		100					105						110		
Tyr	Ser	Pro	Phe	Arg	Thr	Glu	Glu	Glu	Val	Met	Thr	Gln	Phe	Met	Lys
	115					120						125			
Ile	Pro	Gly	Asp	Ser	Gly	Thr	Leu	Val	Ile	Ile	Phe	Asn	Leu	Lys	Leu
	130				135						140				
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Ile	Gln	Met	Ala	Glu	Thr	Ser	Pro	Glu	Gly	Thr	Lys	Pro	Glu	Arg	Arg

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245 250 255
Arg Leu Gly Gly Asp Leu Thr Arg Asp Ser Arg Val Met Leu Arg Gln
260 265 270
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275 280 285
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305 310 315 320
Phe Ile Tyr Asn Cys Ser Arg Leu Ile Lys Met Tyr Glu Lys Val Gly
325 330 335
Pro Gln Leu Glu Gly Gly Met Ala Cys Gly Gly Val Val Gly Val Val
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Asp Val Pro Tyr Leu Val Leu Glu Pro Thr His Asn Lys Gln Asp Phe
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Ala Asp Ala Lys Glu Tyr Arg His Leu Leu Arg Ala Met Gly Glu His
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385 390 395 400
Lys Phe Trp Asp Glu Phe Gly Tyr Leu Ser Ala Asn Trp Asn Gln Pro
405 410 415
Pro Ser Ser Glu Leu Arg Tyr Lys Arg Arg Arg Ala Met Glu Ile Pro
420 425 430
Thr Thr Ile Gln Cys Asp Leu Cys Leu Lys Trp Arg Thr Leu Pro Phe
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Gln Leu Ser Ser Val Glu Lys Asp Tyr Pro Asp Thr Trp Val Cys Ser
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465 470 475 480
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485 490 495
Glu Lys Gln Lys Gln Leu Thr Glu Lys Ile Arg Gln Gln Gln Glu Lys
500 505 510
Leu Glu Ala Leu Gln Lys Thr Thr Pro Ile Arg Ser Gln Ala Asp Leu
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Lys Lys Leu Pro Leu Glu Val Thr Thr Arg Pro Ser Thr Glu Glu Pro
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545 550 555 560
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580 585 590
Ala Leu Ala Ala Arg Glu Glu Ala Ser Thr Ser Arg Leu Leu Gln Pro

595 600 605
Pro Glu Ala Pro Arg Lys Pro Ala Asn Thr Leu Val Lys Thr Ala Ser
610 615 620
Arg Pro Ala Pro Leu Val Gln Gln Leu Ser Pro Ser Leu Leu Pro Asn
625 630 635 640
Ser Lys Ser Pro Arg Glu Val Pro Ser Pro Lys Val Ile Lys Thr Pro
645 650 655
Val Val Lys Lys Thr Glu Ser Pro Ile Lys Leu Ser Pro Ala Thr Pro
660 665 670
Ser Arg Lys Arg Ser Val Ala Val Ser Asp Glu Glu Glu Val Glu Glu
675 680 685
Glu Ala Glu Arg Arg Lys Glu Arg Cys Lys Arg Gly Arg Phe Val Val
690 695 700
Lys Glu Glu Lys Lys Asp Ser Asn Glu Leu Ser Asp Ser Ala Gly Gly
705 710 715 720
Glu Asp Ser Ala Asp Leu Lys Arg Ala Gln Lys Asp Lys Gly Leu His
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740 745 750
Val Glu Val Gly Lys His Val Val Arg Trp Lys Val Lys Phe Asp Tyr
755 760 765
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770 775 780
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785 790 795 800
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805 810 815
Gln Ala Ile Ala Val Ala Glu Pro Ser Thr Ser Glu Cys Leu Arg Ile
820 825 830
Glu Pro Asp Thr Thr Ala Leu Ser Thr Asn His Glu Thr Ile Asp Leu
835 840 845
Leu Val Gln Ile Leu Arg Asn Cys Leu Arg Tyr Phe Leu Pro Pro Ser
850 855 860
Phe Pro Ile Ser Lys Lys Gln Leu Ser Ala Met Asn Ser Asp Glu Leu
865 870 875 880
Ile Ser Phe Pro Leu Lys Glu Tyr Phe Lys Gln Tyr Glu Val Gly Leu
885 890 895
Gln Asn Leu Cys Asn Ser Tyr Gln Ser Arg Ala Asp Ser Arg Ala Lys
900 905 910
Ala Ser Glu Glu Ser Leu Arg Thr Ser Glu Arg Lys Leu Arg Glu Thr
915 920 925
Glu Glu Lys Leu Gln Lys Leu Arg Thr Asn Ile Val Ala Leu Leu Gln
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Tyr Ile Glu Asp Leu Ile Thr Lys Gly Asp
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<210> 3379
<211> 898
<212> DNA
<213> Homo sapiens

<400> 3379

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<210> 3380

<211> 299

<212> PRT

<213> Homo sapiens

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			20					25					30		
Thr	Asn	Gly	Asn	Arg	Pro	Thr	Ile	Pro	Gln	Pro	Trp	Glu	Leu	Arg	Val
		35				40					45				
Ser	Glu	Asp	Ala	Leu	Leu	Gly	Ser	Glu	Ile	Ala	Gln	Val	Thr	Gly	Asn
	50					55					60				
Asp	Val	Asp	Ser	Gly	Pro	Val	Leu	Trp	Tyr	Val	Leu	Ser	Pro	Ser	Gly
65				70					75					80	
Pro	Gln	Asp	Pro	Phe	Ser	Val	Gly	Arg	Tyr	Gly	Gly	Arg	Val	Ser	Leu
			85					90					95		
Thr	Gly	Pro	Leu	Asp	Phe	Glu	Gln	Cys	Asp	Arg	Tyr	Gln	Leu	Gln	Leu
		100						105					110		
Leu	Ala	His	Asp	Gly	Pro	His	Glu	Gly	Arg	Ala	Xaa	Leu	Thr	Val	Leu
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His Leu Ala Ser Pro Ala Asp Gly Phe Ser Val Asp Pro Asn Asn Gly
      180      185      190
Thr Leu Phe Thr Ile Val Gly Thr Leu Ala Leu Gly His Asp Gly Ser
      195      200      205
Gly Ala Val Asp Val Val Leu Glu Ala Arg Asp His Gly Ala Pro Val
      210      215      220
Arg Ala Ala Arg Ala Thr Val Asn Val Gln Leu Arg Asp Gln Asn Asp
225      230      235      240
His Ala Pro Ser Phe Thr Leu Phe His Tyr Arg Val Ala Val Thr Glu
      245      250      255
Asp Leu Pro Pro Gly Ser Thr Leu Leu Thr Leu Glu Ala Thr Asp Ala
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<210> 3381
<211> 1379
<212> DNA
<213> Homo sapiens

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<210> 3382

<211> 279

<212> PRT

<213> Homo sapiens

<400> 3382

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			20					25					30		
Glu	Glu	Glu	Gln	Glu	Glu	Ser	Glu	Glu	Ala	Ala	Cys	Gly	Ser	Lys	Lys
			35				40					45			
Arg	Val	Val	Pro	Gly	Ile	Val	Tyr	Leu	Gly	His	Ile	Pro	Pro	Arg	Phe
			50			55					60				
Arg	Pro	Leu	His	Val	Arg	Asn	Leu	Leu	Ser	Ala	Tyr	Gly	Glu	Val	Gly
65				70						75				80	
Arg	Val	Phe	Phe	Gln	Ala	Glu	Asp	Arg	Phe	Val	Arg	Arg	Lys	Lys	Lys
			85					90						95	
Ala	Ala	Ala	Ala	Ala	Gly	Gly	Lys	Lys	Arg	Ser	Tyr	Thr	Lys	Asp	Tyr
			100					105					110		
Thr	Glu	Gly	Trp	Val	Glu	Phe	Arg	Asp	Lys	Arg	Ile	Ala	Lys	Arg	Val
			115					120					125		
Ala	Ala	Ser	Leu	His	Asn	Thr	Pro	Met	Gly	Ala	Arg	Arg	Arg	Ser	Pro
			130			135					140				
Phe	Arg	Tyr	Asp	Leu	Trp	Asn	Leu	Lys	Tyr	Leu	His	Arg	Phe	Thr	Trp
145				150						155				160	
Ser	His	Leu	Ser	Glu	His	Leu	Ala	Phe	Glu	Arg	Gln	Val	Arg	Arg	Gln
			165					170					175		
Arg	Leu	Arg	Ala	Glu	Val	Ala	Gln	Ala	Lys	Arg	Glu	Thr	Asp	Phe	Tyr
			180					185					190		
Leu	Gln	Ser	Val	Glu	Arg	Gly	Gln	Arg	Phe	Leu	Ala	Ala	Asp	Gly	Asp
			195					200					205		
Pro	Ala	Arg	Pro	Asp	Gly	Ser	Trp	Thr	Phe	Ala	Gln	Arg	Pro	Thr	Glu

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Gln Glu Leu Arg Ala Arg Lys Ala Ala Arg Pro Gly Gly Arg Glu Arg
225 230 235 240
Ala Arg Leu Ala Thr Ala Gln Asp Lys Ala Arg Ser Asn Lys Gly Leu
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<210> 3383
<211> 309
<212> DNA
<213> Homo sapiens

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180
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<210> 3384
<211> 94
<212> PRT
<213> Homo sapiens

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Asn Ala His Phe Leu Thr Ser Phe Val Leu Glu His Arg Ile Thr Ala
35 40 45
Asn Ala His Pro Trp Glu Leu Ser Cys Pro Arg Ser Pro Thr Gln Thr
50 55 60
Leu Gln His Glu Arg Ala Arg Leu Asn Leu Lys Lys Lys Lys Phe Arg
65 70 75 80
Ala Pro Glu Gln Glu Leu Val Ser Ile Ile Asn Ser Glu Ser
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<210> 3385
<211> 720
<212> DNA
<213> Homo sapiens

<400> 3385

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<210> 3386
 <211> 188
 <212> PRT
 <213> Homo sapiens

<400> 3386
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 35 40 45
 Val Asn Phe Pro Ser Ala Lys Gln Tyr Phe Ser Gln Phe Lys His Met
 50 55 60
 Glu Asp Pro Leu Glu Met Glu Arg Ser Pro Gln Leu Arg Lys His Ala
 65 70 75 80
 Cys Arg Val Met Gly Ala Leu Asn Thr Val Val Glu Asn Leu His Asp
 85 90 95
 Pro Asp Lys Val Ser Ser Val Leu Ala Leu Val Gly Lys Ala His Ala
 100 105 110
 Leu Lys His Lys Val Glu Pro Val Tyr Phe Lys Ile Leu Ser Gly Val
 115 120 125
 Ile Leu Glu Val Val Ala Glu Glu Phe Ala Ser Asp Phe Pro Pro Glu
 130 135 140
 Thr Gln Arg Ala Trp Ala Lys Leu Arg Gly Leu Ile Tyr Ser His Val
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180

185

<210> 3387
<211> 3299
<212> DNA
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2565

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<210> 3388
<211> 153
<212> PRT
<213> Homo sapiens

<400> 3388
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20 25 30
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35 40 45
Gly Cys Gly Gly Pro Arg Ile Thr Ile Asn Lys Asp Thr Lys Val Pro
50 55 60
Asn Ala Cys Leu Phe Thr Ile Asn Lys Glu Asp His Thr Leu Gly Asn
65 70 75 80
Ile Ile Lys Ser Gln Leu Leu Lys Asp Pro Gln Val Leu Phe Ala Gly
85 90 95
Tyr Lys Val Pro His Pro Leu Glu His Lys Ile Ile Ile Arg Val Gln
100 105 110
Thr Thr Pro Asp Tyr Ser Pro Gln Glu Ala Phe Thr Asn Ala Ile Thr
115 120 125
Asp Leu Ile Ser Glu Leu Ser Leu Leu Glu Glu Arg Phe Arg Val Ala
130 135 140
Ile Lys Asp Lys Gln Glu Gly Ile Glu
145 150

<210> 3389
<211> 308
<212> DNA
<213> Homo sapiens

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gacggggaac cttctgacca gcctcatggg ctctcagag caggaggatg gggaggagag
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cggtcgac
308

<210> 3390
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3390
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Leu Cys Leu Lys Asn Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr
20 25 30
Thr Gln Lys His Pro Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro
35 40 45
Leu Leu Asn Phe Ile Trp Phe Leu Leu Leu Ala Val Asp Gly Glu Pro
50 55 60
Ser Asp Gln Pro His Gly Leu Leu Arg Ala Gly Gly Trp Gly Gly Glu
65 70 75 80
Pro Gln Arg Arg Gln Pro His Arg Ala Gly Leu Asn Trp Pro Gly His
85 90 95
Val Glu Thr Pro Arg Ser
100

<210> 3391
<211> 1295
<212> DNA
<213> Homo sapiens

<400> 3391
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360
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1295

<210> 3392
<211> 355
<212> PRT
<213> Homo sapiens

<400> 3392
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Phe Gly Val Ile Ala Asp Val Gln Phe Ala Asp Leu Glu Asp Gly Phe
35 40 45
Asn Phe Gln Gly Thr Arg Arg Arg Tyr Tyr Arg His Ser Leu Leu His
50 55 60
Leu Gln Gly Ala Ile Glu Asp Trp Asn Asn Glu Ser Ser Met Pro Cys
65 70 75 80
Cys Val Leu Gln Leu Gly Asp Ile Ile Asp Gly Tyr Asn Ala Gln Tyr
85 90 95
Asn Ala Ser Lys Lys Ser Leu Glu Leu Val Met Asp Met Phe Lys Arg
100 105 110
Leu Lys Val Pro Val His His Thr Trp Gly Asn His Glu Phe Tyr Asn
115 120 125
Phe Ser Arg Glu Tyr Leu Thr His Ser Lys Leu Asn Thr Lys Phe Leu
130 135 140
Glu Asp Gln Ile Val His His Pro Glu Thr Met Pro Ser Glu Asp Tyr
145 150 155 160
Tyr Ala Tyr His Phe Val Pro Phe Pro Lys Phe Arg Phe Ile Leu Leu
165 170 175
Asp Ala Tyr Asp Leu Ser Val Leu Gly Val Asp Gln Ser Ser Pro Lys
180 185 190
Tyr Glu Gln Cys Met Lys Ile Leu Arg Glu His Asn Pro Asn Thr Glu
195 200 205
Leu Asn Ser Pro Gln Gly Leu Ser Glu Pro Gln Phe Val Gln Phe Asn

210	215	220
Gly Gly Phe Ser Gln Glu Gln Leu Asn Trp Leu Asn Glu Val Leu Thr		
225	230	235
Phe Ser Asp Thr Asn Gln Glu Lys Val Val Ile Val Ser His Leu Pro		240
	245	250
Ile Tyr Pro Asp Ala Ser Asp Asn Val Cys Leu Ala Trp Asn Tyr Arg		255
	260	265
Asp Ala Leu Ala Val Ile Trp Ser His Glu Cys Val Val Cys Phe Phe		270
	275	280
Ala Gly His Thr His Asp Gly Gly Tyr Ser Glu Asp Pro Phe Gly Val		285
	290	295
Tyr His Val Asn Leu Glu Gly Val Ile Glu Thr Ala Pro Asp Ser Gln		300
305	310	315
Ala Phe Gly Thr Val His Val Tyr Pro Asp Lys Met Met Leu Lys Gly		320
	325	330
Arg Gly Arg Val Pro Asp Arg Ile Met Asn Tyr Lys Lys Glu Arg Ala		335
	340	345
Phe His Cys		350
355		

<210> 3393
 <211> 510
 <212> DNA
 <213> Homo sapiens

<400> 3393
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 180
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 300
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 360
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 480
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<210> 3394
 <211> 170
 <212> PRT
 <213> Homo sapiens

<400> 3394
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 Cys Arg Leu Gly Met Gly Pro Gly Xaa Val Thr Pro Ser Ser Phe Val

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Gly	Val	Trp	Ala	Gly	Ala	Thr	Ala	Ser	Arg	Gly	Gly	Ser	Asn	Phe	Glu
	35		40		45										
Tyr	Leu	Lys	Arg	Glu	His	Ser	Leu	Ser	Lys	Pro	Tyr	Gln	Gly	Val	Gly
	50		55		60										
Thr	Gly	Ser	Ser	Ser	Leu	Trp	Asn	Leu	Met	Gly	Asn	Xaa	Met	Val	Met
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Thr	Gln	Tyr	Ile	Arg	Leu	Thr	Pro	Asp	Met	Gln	Ser	Lys	Gln	Gly	Ala
	85		90		95										
Leu	Trp	Asn	Arg	Val	Pro	Cys	Phe	Leu	Arg	Asp	Trp	Glu	Leu	Gln	Val
	100		105		110										
His	Phe	Lys	Ile	His	Gly	Gln	Gly	Lys	Lys	Asn	Leu	His	Gly	Asp	Gly
	115		120		125										
Leu	Ala	Ile	Trp	Tyr	Thr	Lys	Asp	Arg	Met	Gln	Pro	Gly	Pro	Val	Phe
	130		135		140										
Gly	Asn	Met	Asp	Lys	Phe	Val	Gly	Leu	Gly	Val	Phe	Val	Asp	Thr	Tyr
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Pro	Asn	Glu	Glu	Lys	Gln	Pro	Phe	Thr	Arg						
	165		170												

<210> 3395

<211> 807

<212> DNA

<213> Homo sapiens

<400> 3395

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<210> 3396
<211> 205
<212> PRT
<213> Homo sapiens

<400> 3396
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Leu Asn Asp Thr Tyr His Ser Arg Asp Ser Ser Phe Arg Leu Asp Ser
35 40 45
Glu Tyr Gln Ser Thr Ser Ala Ser Ala Ser Ala Ser Pro Phe Gln Ser
50 55 60
Ala Trp Tyr Ser Glu Ser Glu Ile Thr Gln Gly Ala Arg Ser Arg Ser
65 70 75 80
Gln Asn Gln Gln Arg Asp His Asp Ser Lys Arg Pro Lys Leu Ser Cys
85 90 95
Thr Asn Cys Thr Thr Ser Ala Gly Arg Asn Val Gly Asn Gly Leu Asn
100 105 110
Thr Leu Ser Asp Ser Ser Trp Arg His Ser Gln Val Pro Arg Ser Ser
115 120 125
Ser Met Val Leu Gly Ser Phe Gly Thr Asp Leu Met Arg Glu Arg Arg
130 135 140
Asp Leu Glu Arg Arg Thr Asp Ser Ser Ile Ser Asn Leu Met Asp Tyr
145 150 155 160
Ser His Arg Ser Gly Asp Phe Thr Thr Ser Ser Tyr Val Gln Asp Arg
165 170 175
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Thr Leu Gln Leu Asn Thr Ser Ser Thr Asn His Gln Leu
195 200 205

<210> 3397
<211> 492
<212> DNA
<213> Homo sapiens

<400> 3397
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492

<210> 3398
<211> 163
<212> PRT
<213> Homo sapiens

<400> 3398
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35 40 45
Ala Ser Ala Ile Pro Ser Trp Leu Leu Asn Asp Pro Gly Val Glu Xaa
50 55 60
Glu Val Met Gly Asp Ala Val Leu Glu Ala Ser His Asn Val Gln Gly
65 70 75 80
Cys Gly Cys Ser Trp Val Ser His Ser Gly Arg Gly Val Gly Pro Glu
85 90 95
Ala Glu Gly Ala Gly Ser Pro Gln Ser Leu Gly His Gly Ser Gly Gly
100 105 110
Trp Ala Ala Arg Arg Cys His Cys Leu Ser Val Ala Gly Val Ala Ala
115 120 125
Ala Ser Gly Cys Pro Arg Thr Glu Glu Ala Ala Trp Gly Glu Ile Leu
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Arg Glu Gly Leu Ser Ser Pro Cys Ser Cys Ser Pro Gly Pro Pro Gly
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Lys Leu Gly

<210> 3399
<211> 5784
<212> DNA
<213> Homo sapiens

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420

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 <211> 1069
 <212> PRT
 <213> Homo sapiens

<400> 3400
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 Cys Asp Val Leu Leu Ile Val Gly Asp Gln Lys Phe Arg Ala His Lys
 35 40 45
 Asn Val Leu Ala Ala Ser Ser Glu Tyr Phe Gln Ser Leu Phe Thr Asn
 50 55 60
 Lys Glu Asn Glu Ser Gln Thr Val Phe Gln Leu Asp Phe Cys Glu Pro
 65 70 75 80
 Asp Ala Phe Asp Asn Val Leu Asn Tyr Ile Tyr Ser Ser Ser Leu Phe
 85 90 95
 Val Glu Lys Ser Ser Leu Ala Ala Val Gln Glu Leu Gly Tyr Ser Leu
 100 105 110
 Gly Ile Ser Phe Leu Thr Asn Ile Val Ser Lys Thr Pro Gln Ala Pro
 115 120 125
 Phe Pro Thr Cys Pro Asn Arg Lys Lys Val Phe Val Glu Asp Asp Glu
 130 135 140
 Asn Ser Ser Gln Lys Arg Ser Val Ile Val Cys Gln Ser Arg Asn Glu
 145 150 155 160
 Ala Gln Gly Lys Thr Val Ser Gln Asn Gln Pro Asp Val Ser His Thr
 165 170 175
 Ser Arg Pro Ser Pro Ser Ile Ala Val Lys Ala Asn Thr Asn Lys Pro
 180 185 190
 His Val Pro Lys Pro Ile Glu Pro Leu His Asn Leu Ser Leu Thr Glu
 195 200 205
 Lys Ser Trp Pro Lys Asp Ser Ser Val Val Tyr Ala Lys Ser Leu Glu
 210 215 220
 His Ser Gly Ser Leu Asp Asp Pro Asn Arg Ile Ser Leu Val Lys Arg

225 230 235 240
Asn Ala Val Leu Pro Ser Lys Pro Leu Gln Asp Arg Glu Ala Met Asp
245 250 255
Asp Lys Pro Gly Val Ser Gly Gln Leu Pro Lys Gly Lys Ala Leu Glu
260 265 270
Leu Ala Leu Lys Arg Pro Arg Pro Pro Val Leu Ser Val Cys Ser Ser
275 280 285
Ser Glu Thr Pro Tyr Leu Leu Lys Glu Thr Asn Lys Gly Asn Gly Gln
290 295 300
Gly Glu Asp Arg Asn Leu Leu Tyr Tyr Ser Lys Leu Gly Leu Val Ile
305 310 315 320
Pro Ser Ser Gly Ser Gly Ser Gly Asn Gln Ser Ile Asp Arg Ser Gly
325 330 335
Pro Leu Val Lys Ser Leu Leu Arg Arg Ser Leu Ser Met Asp Ser Gln
340 345 350
Val Pro Val Tyr Ser Pro Ser Ile Asp Leu Lys Ser Ser Gln Gly Ser
355 360 365
Ser Ser Val Ser Ser Asp Ala Pro Gly Asn Val Leu Cys Ala Leu Ser
370 375 380
Gln Lys Ser Ser Leu Lys Asp Cys Ser Glu Lys Thr Ala Leu Asp Asp
385 390 395 400
Arg Pro Gln Val Leu Gln Pro His Arg Leu Arg Ser Phe Ser Ala Ser
405 410 415
Gln Ser Thr Asp Arg Glu Gly Ala Ser Pro Val Thr Glu Val Arg Ile
420 425 430
Lys Thr Glu Pro Ser Ser Pro Leu Ser Asp Pro Ser Asp Ile Ile Arg
435 440 445
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450 455 460
Val Thr Arg Asp Leu Ser Leu Lys Thr Glu Asp Asp Gln Lys Asp Met
465 470 475 480
Ser Arg Leu Pro Ala Lys Arg Arg Phe Gln Ala Asp Arg Arg Leu Pro
485 490 495
Phe Lys Lys Leu Lys Val Asn Glu His Gly Ser Pro Val Ser Glu Asp
500 505 510
Asn Phe Glu Gly Ser Ser Pro Thr Leu Leu Asp Ala Asp Phe Pro
515 520 525
Asp Ser Asp Leu Asn Lys Asp Glu Phe Gly Glu Leu Glu Gly Thr Arg
530 535 540
Pro Asn Lys Lys Phe Lys Cys Lys His Cys Leu Lys Ile Phe Arg Ser
545 550 555 560
Thr Ala Gly Leu His Arg His Val Asn Met Tyr His Asn Pro Glu Lys
565 570 575
Pro Tyr Ala Cys Asp Ile Cys His Lys Arg Phe His Thr Asn Phe Lys
580 585 590
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595 600 605
Pro Ala Ser Ser Ser His Ala Val Leu Asp Glu Lys Phe Gln Arg Lys
610 615 620
Leu Ile Asp Ile Val Arg Glu Arg Glu Ile Lys Lys Ala Leu Ile Ile
625 630 635 640
Lys Leu Arg Arg Gly Lys Pro Gly Phe Gln Gly Gln Ser Ser Ser Gln
645 650 655
Ala Gln Gln Val Ile Lys Arg Asn Leu Arg Ser Arg Ala Lys Gly Ala

660 665 670
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675 680 685
Lys Gln His Ile Lys Met His Pro Gly Glu Lys Pro Leu Gly Val Asn
690 695 700
Lys Val Ala Lys Pro Lys Glu His Ala Pro Leu Ala Ser Pro Val Glu
705 710 715 720
Asn Lys Glu Val Tyr Gln Cys Arg Leu Cys Asn Ala Lys Leu Ser Ser
725 730 735
Leu Leu Glu Gln Gly Ser His Glu Arg Leu-Cys Arg Asn Ala Ala Val
740 745 750
Cys Pro Tyr Cys Ser Leu Arg Phe Phe Ser Pro Glu Leu Lys Gln Glu
755 760 765
His Glu Ser Lys Cys Glu Tyr Lys Lys Leu Thr Cys Leu Glu Cys Met
770 775 780
Arg Thr Phe Lys Ser Ser Phe Ser Ile Trp Arg His Gln Val Glu Val
785 790 795 800
His Asn Gln Asn Asn Met Ala Pro Thr Glu Asn Phe Ser Leu Pro Val
805 810 815
Leu Asp His Asn Gly Asp Val Thr Gly Ser Ser Arg Pro Gln Ser Gln
820 825 830
Pro Glu Pro Asn Lys Val Asn His Ile Val Thr Thr Lys Asp Asp Asn
835 840 845
Val Phe Ser Asp Ser Ser Glu Gln Val Asn Phe Asp Ser Glu Asp Ser
850 855 860
Ser Cys Leu Pro Glu Asp Leu Ser Leu Ser Lys Gln Leu Lys Ile Gln
865 870 875 880
Val Lys Glu Glu Pro Val Glu Glu Ala Glu Glu Ala Pro Glu Ala
885 890 895
Ser Thr Ala Pro Lys Glu Ala Gly Pro Ser Lys Glu Ala Ser Leu Trp
900 905 910
Pro Cys Glu Lys Cys Gly Lys Met Phe Thr Val His Lys Gln Leu Glu
915 920 925
Arg His Gln Glu Leu Leu Cys Ser Val Lys Pro Phe Ile Cys His Val
930 935 940
Cys Asn Lys Ala Phe Arg Thr Asn Phe Arg Leu Trp Ser His Phe Gln
945 950 955 960
Ser His Met Ser Gln Ala Ser Glu Glu Ser Ala His Lys Glu Ser Glu
965 970 975
Val Cys Pro Val Pro Thr Asn Ser Pro Ser Pro Pro Pro Leu Pro Pro
980 985 990
Pro Pro Pro Leu Pro Lys Ile Gln Pro Leu Glu Pro Asp Ser Pro Thr
995 1000 1005
Gly Leu Ser Glu Asn Pro Thr Pro Ala Thr Glu Lys Leu Phe Val Pro
1010 1015 1020
Gln Glu Ser Asp Thr Leu Phe Tyr His Ala Pro Pro Leu Ser Ala Ile
1025 1030 1035 1040
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<210> 3401

<211> 579

<212> DNA

<213> Homo sapiens

<400> 3401

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120
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180
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240
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300
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360
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420
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480
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<210> 3402

<211> 148

<212> PRT

<213> Homo sapiens

<400> 3402

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		20					25					30			
Val	Tyr	Thr	Arg	Leu	Gly	Glu	Met	Asn	Asn	Ala	Val	Arg	Asn	Leu	Gln
		35				40					45				
Glu	Leu	Leu	Glu	Leu	Asp	Ser	Ser	Ser	Ser	Leu	Cys	Val	Leu	Val	Ser
		50			55					60					
Thr	Val	Gly	Lys	Leu	Cys	Arg	Leu	Ile	Asn	Glu	Asp	Val	Asn	Glu	Gln
65				70					75				80		
Val	Met	Gln	Val	Leu	Gly	Pro	Glu	Asp	Leu	Gln	Ser	Ile	Ile	Tyr	Lys
		85					90						95		
Leu	Glu	Glu	His	Glu	Glu	Phe	Phe	Pro	Ala	Phe	Gln	Ala	Phe	Thr	Asn
		100					105					110			
Asp	Leu	Leu	Glu	Ile	Leu	Glu	Ile	Asp	Asp	Ser	Gly	Cys	His	Cys	Thr
		115				120					125				
Cys	Ser	Lys	Glu	Ile	Lys	Ser	Thr	Phe	Ile	Leu	Lys	Thr	Asn	Gln	Ile
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<210> 3403

<211> 1696

<212> DNA

<213> Homo sapiens

<400> 3403

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240
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<210> 3404

<211> 286

<212> PRT

<213> Homo sapiens

<400> 3404

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			20				25						30		
Ala	Ser	Glu	Cys	Thr	Glu	Leu	Pro	Lys	Ala	Glu	Lys	Trp	Arg	Arg	Gln
			35				40					45			
Ile	Ile	Gly	Glu	Ile	Ser	Lys	Lys	Val	Ala	Gln	Ile	Gln	Asn	Ala	Gly
			50			55					60				
Leu	Gly	Glu	Phe	Arg	Ile	Arg	Asp	Leu	Asn	Asp	Glu	Ile	Asn	Lys	Leu
65				70				75						80	
Leu	Arg	Glu	Lys	Gly	His	Trp	Glu	Val	Arg	Ile	Lys	Glu	Leu	Gly	Gly
				85			90							95	
Pro	Asp	Tyr	Gly	Lys	Val	Gly	Pro	Lys	Met	Leu	Asp	His	Glu	Gly	Lys
			100				105						110		
Glu	Val	Pro	Gly	Asn	Arg	Gly	Tyr	Lys	Tyr	Phe	Gly	Ala	Ala	Lys	Asp
			115				120					125			
Leu	Pro	Gly	Val	Arg	Glu	Leu	Phe	Glu	Lys	Xaa	Thr	Ser	Ser	Ser	Ser
			130			135					140				
Gln	Xaa	Lys	Thr	Arg	Ala	Glu	Leu	Met	Lys	Ala	Ile	Asp	Phe	Glu	Tyr
145				150				155						160	
Tyr	Gly	Tyr	Leu	Asp	Glu	Asp	Asp	Gly	Val	Ile	Val	Pro	Leu	Glu	Gln
			165				170							175	
Glu	Tyr	Glu	Lys	Lys	Leu	Arg	Ala	Glu	Leu	Val	Glu	Lys	Trp	Lys	Ala
			180				185						190		
Glu	Arg	Glu	Ala	Arg	Leu	Ala	Arg	Gly	Glu	Lys	Glu	Glu	Glu	Glu	Glu
			195			200						205			
Glu	Glu	Glu	Glu	Ile	Asn	Ile	Tyr	Ala	Val	Thr	Glu	Glu	Glu	Ser	Asp
			210			215					220				
Glu	Glu	Gly	Ser	Gln	Glu	Lys	Gly	Gly	Asp	Asp	Ser	Gln	Gln	Lys	Phe
225				230				235						240	
Ile	Ala	His	Val	Pro	Val	Pro	Ser	Gln	Gln	Glu	Ile	Glu	Glu	Ala	Leu
			245				250							255	
Val	Arg	Arg	Lys	Lys	Met	Glu	Leu	Leu	Gln	Lys	Tyr	Ala	Ser	Glu	Thr
			260				265					270			
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<210> 3405

<211> 402

<212> DNA
<213> Homo sapiens

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aacctgctcg cctccatccg taagggaat gccattgacg aagcggacat cccgccgcca
180
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240
gcccctagaa tcgcgtcagc cccagagccc agggtcaccc tggagggacc ttctgccacc
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360
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402

<210> 3406
<211> 134
<212> PRT
<213> Homo sapiens

<400> 3406
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20 25 30
Asp Arg Gly Leu Lys Thr Leu Glu Asn Leu Leu Ala Ser Ile Arg Lys
35 40 45
Gly Asn Ala Ile Asp Glu Ala Asp Ile Pro Pro Pro Val Ala Ile Gly
50 55 60
Lys Gly Pro Ala Ser Thr Pro Thr Tyr Ser Pro Ala Pro Thr Gln Pro
65 70 75 80
Ala Pro Arg Ile Ala Ser Ala Pro Glu Pro Arg Val Thr Leu Glu Gly
85 90 95
Pro Ser Ala Thr Ala Pro Ala Ser Ser Pro Gly Leu Ala Lys Pro Gln
100 105 110
Met Pro Pro Gly Pro Cys Ser Pro Pro Ser Gly Pro Val Ala Glu Pro
115 120 125
Pro Ala Arg Leu Gln Ala
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<210> 3407
<211> 535
<212> DNA
<213> Homo sapiens

<400> 3407
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tttcccgac accatgcctt ctccggcgtg aggcagggtg cggcaccgac aggccggggg
120

gggacctttc ccggacaccc aacctctctg gtggcgaggc aggtggcggc accgacaggc
180
ccggcgggga cctttcccgg ancacctggc ctccctggca agcagggtggc ggcaccaaca
240
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300
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360
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420
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480
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535

<210> 3408
<211> 131
<212> PRT
<213> Homo sapiens

<400> 3408
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20 25 30
Val Ala Ala Pro Thr Gly Pro Gly Gly Thr Phe Pro Gly His Pro Thr
35 40 45
Ser Ser Val Ala Arg Gln Val Ala Ala Pro Thr Gly Pro Ala Gly Thr
50 55 60
Phe Pro Gly Xaa Pro Gly Leu Leu Gly Lys Gln Val Ala Ala Pro Thr
65 70 75 80
Gly Pro Gly Gly Thr Phe Pro Gly His Leu Ala Ser Ser Ala Arg Gln
85 90 95
Val Ala Glu Leu Val Pro Arg Leu Ile Phe Leu Arg Gln Thr Cys Leu
100 105 110
Gln Arg Lys Leu Cys Ser Thr Gly Glu Thr Gly Lys Cys Thr Arg Tyr
115 120 125
Trp Leu Ile
130

<210> 3409
<211> 959
<212> DNA
<213> Homo sapiens

<400> 3409
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120
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180
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240

ctgcagtggg accgcaagct gagcgagctg tcagagcccg gggacggcga ggcctcatg
300
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<211> 144

<212> PRT

<213> Homo sapiens

<400> 3410

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His	Ile	Thr	Thr	Ser	Asp	Ser	Phe	Asn	Asp	Asp	Glu	Val	Glu	Ser
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Arg	Asn	Gly	Thr	Cys	Leu	Gln	Thr	Ser	Leu	Gln	His	Pro	Ser	Arg
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<211> 958

<212> DNA

<213> Homo sapiens

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<211> 185
<212> PRT
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35 40 45
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50 55 60
Asp His Leu Gln Leu Lys Asp Ile Leu Arg Lys Gln Asp Glu Tyr His
65 70 75 80
Met Val His Leu Val Cys Thr Ser Arg Thr Pro Pro Ser Ser Pro Lys
85 90 95
Ser Ser Thr Asn Arg Glu Ser His Glu Ala Leu Ala Ser Ser Ser Asn

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Thr	Leu	Ser	Leu	Ala	Val	Gly	Ser	Ser	Ser	Glu	Gly	Leu	Arg	Gln	Arg
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<211> 723
<212> PRT
<213> Homo sapiens

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Gly Gly Val Ser Ser Val Asn Glu Arg Pro Ile Ala Gln Gln Leu Asn
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Pro Gly Phe Gln Leu Ser Phe Ala Ser Ser Gly Pro Ser Val Leu Leu
65 70 75 80
Pro Ser Val Pro Ala Val Ala Ile Lys Val Phe Cys Ser Gly Cys Lys
85 90 95
Lys Met Leu Tyr Lys Gly Gln Thr Ala Tyr His Lys Thr Gly Ser Thr
100 105 110
Gln Leu Phe Cys Ser Thr Arg Cys Ile Thr Arg His Ser Ser Pro Ala
115 120 125
Cys Leu Pro Pro Pro Pro Lys Lys Thr Cys Thr Asn Cys Ser Lys Asp
130 135 140
Ile Leu Asn Pro Lys Asp Val Ile Thr Thr Arg Phe Glu Asn Ser Tyr
145 150 155 160
Pro Ser Lys Asp Phe Cys Ser Gln Ser Cys Leu Ser Ser Tyr Glu Leu
165 170 175
Lys Lys Lys Pro Val Val Thr Ile Tyr Thr Lys Ser Ile Ser Thr Lys
180 185 190
Cys Ser Met Cys Gln Lys Asn Ala Asp Thr Arg Phe Glu Val Lys Tyr

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His Ser Thr Asn Asn Leu Thr Thr Asn Cys Cys Glu Asn Cys Gly Ser
225 230 235 240
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245 250 255
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260 265 270
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325 330 335
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Cys Asn His Leu Phe Ala Thr Lys Pro Glu Leu Leu Phe Tyr Lys Gly
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450 455 460
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465 470 475 480
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485 490 495
Glu Gly Cys Lys Leu Leu Tyr Lys His Asp Leu Ala Lys Arg Trp Gly
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Asn His Cys Lys Met Cys Ser Tyr Cys Ser Gln Thr Ser Pro Asn Leu
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Gly Cys Lys Arg Gln Gly Lys Leu Ser Glu Ser Ile Lys Trp Arg Gly
565 570 575
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Gln Gln Ile Met Asn Asp Cys Leu Pro Gln Asn Lys Val Asn Ile Ser
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Lys Ala Lys Thr Ala Val Thr Glu Leu Pro Ser Ala Arg Thr Asp Thr
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 675 680 685
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 <212> DNA
 <213> Homo sapiens

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 Asn Ile Thr His Ile Cys Leu Pro Pro Asp Ser Ser Glu Ala Glu Ile
 65 70 75 80
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 85 90 95
 Ala Leu Gln Ile Ser Glu Asn Leu Phe Ser Asn Lys Val Leu Asn Ala
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 Leu Lys Pro Glu Lys Asp Val Asp Gly Val Thr Asp Ile Asn Leu Gly
 115 120 125
 Lys Leu Val Arg Gly Asp Ala His Glu Cys Phe Val Ser Pro Val Ala

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      180      185      190
Trp Lys Thr Arg Gln Leu Gln Ser Lys Leu His Glu Ala Asp Ile Val
      195      200      205
Val Leu Gly Ser Pro Lys Pro Glu Glu Ile Pro Leu Thr Trp Ile Gln
      210      215      220
Pro Gly Thr Thr Val Leu Asn Cys Ser His Asp Phe Leu Ser Gly Lys
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120
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180
attacaatcg attggaacaa gctccagagc ctctcggcatt tccagcctgc attgctcttt
240
agtgcacttg aacaacacat tttatattta caggtaaatt tcttggttaga aatgataacc
300
cgatattgaa aatagaaatt gattgtggtt aagttagttg gagtatttga cagttctaaa
360
cactatatta atagtgttgc taataaaacg ttattttacat ccgga
405

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<210> 3418
<211> 94
<212> PRT
<213> Homo sapiens

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<400> 3418
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Leu Glu Arg Arg Cys Ser Pro Asn Leu Ser Arg Glu Val Leu Tyr Glu
      20      25      30
Ile Phe Arg Ser Leu His Thr Leu Val Gly Gln Leu Asp Leu Arg Asp
      35      40      45
Asp Val Val Lys Ile Thr Ile Asp Trp Asn Lys Leu Gln Ser Leu Ser
      50      55      60
Ala Phe Gln Pro Ala Leu Leu Phe Ser Ala Leu Glu Gln His Ile Leu

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65 70 75 80
Tyr Leu Gln Val Asn Phe Leu Leu Glu Met Ile Thr Arg Tyr
 85 90

<210> 3419
<211> 418
<212> DNA
<213> Homo sapiens

<400> 3419
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120
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240
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300
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agccttctgc cccattacc accgcccatt cccctggcgc tctcggagag aggtctga
418

<210> 3420
<211> 105
<212> PRT
<213> Homo sapiens

<400> 3420
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 20 25 30
Cys Cys Leu Ala Leu Lys Ala His Arg Arg Pro Cys Val His Leu His
 35 40 45
Cys Asp Thr Val Ala Leu Glu Ser Thr Thr Leu Arg Gly Thr Thr Arg
50 55 60
Glu Val Thr Arg Arg Ser Pro Ile Asn Met Lys His Pro Glu Gln Gly
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Glu Pro Gly Gly Pro Ala Asp Gln Trp Val Pro Arg Arg Glu Trp Ala
 85 90 95
Gly Trp Asp Gly Ser Gly Val Asn Arg
 100 105

<210> 3421
<211> 2988
<212> DNA
<213> Homo sapiens

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180
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420
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2880
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2988

<210> 3422

<211> 418

<212> PRT

<213> Homo sapiens

<400> 3422

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	20		25		30										
Phe	Ser	Ser	Lys	Thr	Val	Thr	Val	Leu	Leu	Leu	Ala	Gln	Thr	Thr	Cys
	35						40					45			
Leu	Leu	Leu	Phe	Ile	Ile	Ser	Arg	Pro	Gly	Pro	Ser	Ser	Pro	Ala	Gly
	50					55					60				
Gly	Glu	Asp	Arg	Val	His	Val	Leu	Val	Leu	Ser	Ser	Trp	Arg	Ser	Gly
65				70						75					80
Ser	Ser	Phe	Leu	Gly	Gln	Leu	Phe	Ser	Gln	His	Pro	Asp	Val	Phe	Tyr
			85						90					95	
Leu	Met	Glu	Pro	Ala	Trp	His	Val	Trp	Thr	Thr	Leu	Ser	Gln	Gly	Ser
			100					105					110		
Ala	Ala	Thr	Leu	His	Met	Ala	Val	Arg	Asp	Leu	Met	Arg	Ser	Ile	Phe
	115						120					125			
Leu	Cys	Asp	Met	Asp	Val	Phe	Asp	Ala	Tyr	Met	Glu	Pro	Gly	Pro	Arg
	130					135					140				
Arg	Gln	Ser	Ser	Leu	Phe	Gln	Trp	Glu	Asn	Ser	Arg	Ala	Leu	Cys	Ser
145				150					155						160
Ala	Pro	Ala	Cys	Asp	Ile	Ile	Pro	Gln	Asp	Glu	Ile	Ile	Pro	Arg	Ala
			165						170					175	
His	Cys	Arg	Leu	Leu	Cys	Ser	Gln	Gln	Pro	Phe	Glu	Val	Val	Glu	Lys
	180							185					190		
Ala	Cys	Arg	Ser	Tyr	Ser	His	Val	Val	Leu	Lys	Glu	Val	Arg	Phe	Phe
	195						200					205			
Asn	Leu	Gln	Ser	Leu	Tyr	Pro	Leu	Leu	Lys	Asp	Pro	Ser	Leu	Asn	Leu
	210					215					220				
His	Ile	Val	His	Leu	Val	Arg	Asp	Pro	Arg	Ala	Val	Leu	Arg	Ser	Arg
225				230						235					240
Glu	Ala	Ala	Gly	Pro	Ile	Leu	Ala	Arg	Asp	Asn	Gly	Ile	Val	Leu	Gly
			245						250					255	
Thr	Asn	Gly	Lys	Trp	Val	Glu	Ala	Asp	Pro	His	Leu	Arg	Leu	Ile	Arg
	260							265					270		
Glu	Val	Cys	Arg	Ser	His	Val	Arg	Ile	Ala	Glu	Ala	Ala	Thr	Leu	Lys
	275						280					285			
Pro	Pro	Pro	Phe	Leu	Arg	Gly	Arg	Tyr	Arg	Leu	Val	Arg	Phe	Glu	Asp
	290					295					300				
Leu	Ala	Arg	Glu	Pro	Leu	Ala	Glu	Ile	Arg	Ala	Leu	Tyr	Ala	Phe	Thr
305				310						315					320
Gly	Leu	Thr	Leu	Thr	Pro	Gln	Leu	Glu	Ala	Trp	Ile	His	Asn	Ile	Thr
			325						330					335	
His	Gly	Ser	Gly	Ile	Gly	Lys	Pro	Ile	Glu	Ala	Phe	His	Thr	Ser	Ser
	340							345					350		
Arg	Asn	Ala	Arg	Asn	Val	Ser	Gln	Ala	Trp	Arg	His	Ala	Leu	Pro	Phe
	355						360					365			
Thr	Lys	Ile	Leu	Arg	Val	Gln	Glu	Val	Cys	Ala	Gly	Ala	Leu	Gln	Leu
	370					375					380				
Leu	Gly	Tyr	Arg	Pro	Val	Tyr	Ser	Ala	Asp	Gln	Gln	Arg	Asp	Leu	Thr
385				390						395					400
Leu	Asp	Leu	Val	Leu	Pro	Arg	Gly	Pro	Asp	His	Phe	Ser	Trp	Ala	Ser
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Pro	Asp														

<210> 3423
 <211> 1851

<212> DNA

<213> Homo sapiens

<400> 3423

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780
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1800
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1851

<210> 3424
<211> 136
<212> PRT
<213> Homo sapiens

<400> 3424
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Gln Arg Trp Val Ile Gly Arg Cys Leu Cys Val Pro Glu Arg Ser Leu
20 25 30
Ala Ser Tyr Gly Val Arg Gln Asp Gly Asp Pro Ala Phe Leu Tyr Leu
35 40 45
Leu Ser Ala Pro Arg Glu Ala Pro Ala Thr Gly Pro Ser Pro Gln His
50 55 60
Pro Gln Lys Met Asp Gly Glu Leu Gly Arg Leu Phe Pro Pro Ser Leu
65 70 75 80
Gly Leu Pro Pro Gly Pro Gln Pro Ala Ala Ser Ser Leu Pro Ser Pro
85 90 95
Leu Gln Pro Ser Trp Ser Cys Pro Ser Cys Thr Phe Ile Asn Ala Pro
100 105 110
Asp Arg Pro Gly Cys Glu Met Cys Ser Thr Gln Arg Pro Cys Thr Trp
115 120 125
Asp Pro Leu Ala Ala Ala Ser Thr
130 135

<210> 3425
<211> 1416
<212> DNA
<213> Homo sapiens

<400> 3425
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120
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240
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<210> 3426
<211> 410
<212> PRT
<213> Homo sapiens

<400> 3426
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Ala Pro Gly Pro Ala Ser Arg Arg Gly Ala Val Gln Ala Gly Gly Asp
20 25 30
Ser Leu Gly Arg Asp Pro Gly Arg Glu Glu Glu Val Arg Pro Arg Gly
35 40 45
Arg Lys Ala Ala Ser Pro Gly Ala Pro Arg Pro Trp Pro Arg His Ser
50 55 60
Thr His Met Ala Ser Gly Val Gly Ala Ala Phe Glu Glu Leu Pro His

65 70 75 80
Asp Gly Thr Cys Asp Glu Cys Glu Pro Asp Glu Ala Pro Gly Ala Glu
 85 90 95
Glu Val Cys Arg Glu Cys Gly Phe Cys Tyr Cys Arg Arg His Ala Glu
 100 105 110
Ala His Arg Gln Lys Phe Leu Ser His His Leu Ala Glu Tyr Val His
 115 120 125
Gly Ser Gln Ala Trp Thr Pro Pro Ala Asp Gly Glu Gly Ala Gly Lys
 130 135 140
Glu Glu Ala Glu Val Lys Val Glu Gln Glu Arg Glu Ile Glu Ser Glu
145 150 155 160
Ala Gly Glu Glu Ser Glu Ser Glu Glu Ser Glu Ser Glu Glu Glu
 165 170 175
Ser Glu Thr Glu Glu Glu Ser Glu Asp Glu Ser Asp Glu Glu Ser Glu
 180 185 190
Glu Asp Ser Glu Glu Glu Met Glu Asp Glu Gln Glu Ser Glu Ala Glu
 195 200 205
Glu Asp Asn Gln Glu Glu Gly Glu Ser Glu Ala Glu Gly Glu Thr Glu
210 215 220
Ala Glu Ser Glu Phe Asp Pro Glu Ile Glu Met Glu Ala Glu Arg Val
225 230 235 240
Ala Lys Arg Lys Cys Pro Asp His Gly Leu Asp Leu Ser Thr Tyr Cys
 245 250 255
Gln Glu Asp Arg Gln Leu Ile Cys Val Leu Cys Pro Val Ile Gly Ala
 260 265 270
His Gln Gly His Gln Leu Ser Thr Leu Asp Glu Ala Phe Glu Glu Leu
 275 280 285
Arg Ser Lys Asp Ser Gly Gly Leu Lys Ala Ala Met Ile Glu Leu Val
290 295 300
Glu Arg Leu Lys Phe Lys Ser Ser Asp Pro Lys Val Thr Arg Asp Gln
305 310 315 320
Met Lys Met Phe Ile Gln Gln Glu Phe Lys Lys Val Gln Lys Val Ile
 325 330 335
Ala Asp Glu Glu Gln Lys Ala Leu His Leu Val Asp Ile Gln Glu Ala
 340 345 350
Met Ala Thr Ala His Val Thr Glu Ile Leu Ala Asp Ile Gln Ser His
355 360 365
Met Asp Arg Leu Met Thr Gln Met Ala Gln Ala Lys Glu Gln Leu Asp
370 375 380
Thr Ser Asn Glu Ser Ala Glu Pro Lys Ala Glu Gly Asp Glu Glu Gly
385 390 395 400
Pro Ser Gly Ala Ser Glu Glu Glu Asp Thr
 405 410

<210> 3427
<211> 580
<212> DNA
<213> Homo sapiens

<400> 3427
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120

gggtctggat tgagacttgg accttctgag cactggcaga tgtactgget tctcttcagg
180
caggattttc tctggacaca actctgaact tagactcttt aaggactctg cactcctgtg
240
cagcatggaa gagttcaaag ttcccatatt gctcatcttc tcacaatctt ctgtttccat
300
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360
agccccctgtg atattggaca atgccaaga atccatcgaa tcccgaacac ttgtctctgg
420
tttcaggtct gacagacact ccaggaatc ttcataccac tgtgtttcat catgattata
480
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540
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580

<210> 3428

<211> 132

<212> PRT

<213> Homo sapiens

<400> 3428

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Glu	Asn	Lys	Pro	Arg	Pro	Ser	Leu	Tyr	Ser	Leu	Gln	Asn	Phe	Glu	Glu
		20					25					30			
Met	Glu	Thr	Glu	Asp	Cys	Glu	Lys	Met	Ser	Asn	Met	Gly	Thr	Leu	Asn
		35					40					45			
Ser	Ser	Met	Leu	His	Arg	Ser	Ala	Glu	Ser	Leu	Lys	Ser	Leu	Ser	Ser
		50				55					60				
Glu	Leu	Cys	Pro	Glu	Lys	Ile	Leu	Pro	Glu	Glu	Lys	Pro	Val	His	Leu
65					70				75					80	
Pro	Val	Leu	Arg	Arg	Ser	Lys	Ser	Gln	Ser	Arg	Pro	Gln	Gln	Val	Lys
			85					90						95	
Phe	Ser	Asp	Asp	Val	Ile	Asp	Asn	Gly	Asn	Tyr	Asp	Ile	Glu	Ile	Arg
		100					105					110			
Gln	Pro	Pro	Met	Ser	Glu	Arg	Thr	Arg	Arg	Arg	Val	Tyr	Asn	Phe	Glu
		115					120					125			
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<210> 3429

<211> 634

<212> DNA

<213> Homo sapiens

<400> 3429

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<210> 3430
<211> 122
<212> PRT
<213> Homo sapiens

<400> 3430
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Tyr Thr Val Thr Thr Val Thr Thr Gln Gly Phe Pro Leu Pro Thr Gly
35 40 45
Gln His Ile Pro Gly Cys Ser Ala Gln Gln Leu Pro Ala Cys Ser Val
50 55 60
Met Phe Ser Gly Gln His Tyr Pro Leu Cys Cys Leu Pro Pro Pro Leu
65 70 75 80
Ile Gln Ala Cys Thr Met Gln Gln Leu Pro Val Pro Tyr Gln Ala Tyr
85 90 95
Pro His Leu Ile Ser Ser Asp His Tyr Ile Leu His Pro Pro Pro Pro
100 105 110
Gly Thr His Pro Ala Ala Pro Gly Ser Val
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<210> 3431
<211> 1396
<212> DNA
<213> Homo sapiens

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240

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1380
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1396

<210> 3432
<211> 296
<212> PRT
<213> Homo sapiens

<400> 3432
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Arg Val Ala Leu Ala Gly Glu Leu Val Gly Val Gly Gly His Phe Leu
35 40 45
Phe Leu Gly Leu Ala Leu Val Ser Lys Asp Trp Arg Phe Leu Gln Arg

50	55	60
Met Ile Thr Ala Pro Cys Ile Leu Phe Leu Phe Tyr Gly Trp Pro Gly		
65	70	75
Leu Phe Leu Glu Ser Ala Arg Trp Leu Ile Val Lys Arg Gln Ile Glu		80
	85	90
Glu Ala Gln Ser Val Leu Arg Ile Leu Ala Glu Arg Asn Arg Pro His		95
	100	105
Gly Gln Met Leu Gly Glu Glu Ala Gln Glu Ala Leu Gln Asp Leu Glu		110
	115	120
Asn Thr Cys Pro Leu Pro Ala Thr Ser Ser Phe Ser Phe Ala Ser Leu		125
	130	135
Leu Asn Tyr Arg Asn Ile Trp Lys Asn Leu Leu Ile Leu Gly Phe Thr		140
	145	150
Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr Gln Pro Val Gly Gly		155
	160	165
Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser Leu Leu Ala Ser Gly		170
	175	180
Thr Ala Ala Leu Ala Cys Val Phe Leu Gly Val Thr Val Asp Arg Phe		185
	190	195
Gly Arg Arg Gly Ile Leu Leu Ser Met Thr Leu Thr Gly Ile Ala		200
	205	210
Ser Leu Val Leu Leu Gly Leu Trp Asp Cys Glu His Pro Ile Phe Pro		215
	220	225
Thr Val Trp Ala Gln Gln Gly Asn Pro Asn Arg Asp Leu Asn Glu Ala		230
	235	240
Ala Ile Thr Thr Phe Ser Val Leu Gly Leu Phe Ser Ser Gln Ala Ala		245
	250	255
Ala Ile Leu Ser Thr Leu Leu Ala Ala Glu Val Ile Pro Thr Thr Val		260
	265	270
Arg Gly Arg Gly Leu Gly Leu Ile		275
	280	285
	290	295

<210> 3433
 <211> 1257
 <212> DNA
 <213> Homo sapiens

<400> 3433
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 420
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<210> 3434

<211> 311

<212> PRT

<213> Homo sapiens

<400> 3434

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			20					25					30		
Gly	Arg	Gln	Arg	Pro	Gln	Arg	Pro	Ser	His	Ser	Arg	Ser	His	Thr	Arg
		35				40					45				
Ser	Asn	Leu	Lys	Arg	Asp	Val	Ala	His	Leu	Tyr	Arg	Gly	Val	Gly	Ser
	50					55					60				
Arg	Tyr	Ile	Met	Gly	Ser	Gly	Glu	Ser	Phe	Met	Gln	Leu	Gln	Gln	Arg
65				70					75					80	
Leu	Leu	Arg	Glu	Lys	Glu	Ala	Lys	Ile	Arg	Lys	Ala	Leu	Asp	Arg	Leu
			85					90					95		
Arg	Lys	Lys	Arg	His	Leu	Leu	Arg	Arg	Gln	Arg	Thr	Arg	Arg	Glu	Phe
			100					105					110		
Pro	Val	Ile	Ser	Val	Val	Gly	Tyr	Thr	Asn	Cys	Gly	Glu	His	Ala	Pro
		115				120						125			
Arg	Gly	Gly	Ala	Phe	Arg	Gly	Leu	Arg	Val	Thr	Gly	Glu	Asp	Ser	Pro
	130					135					140				
Gly	Gly	Gly	Gln	Gly	Val	Pro	Val	Val	Ser	Val	Val	Pro	Tyr	Asp	Ser
145				150					155					160	
Cys	Gly	Glu	His	Val	Pro	Arg	Arg	Gly	Gly	Ser	His	Gly	Arg	Arg	Val

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Gly Tyr Thr Ser Cys Cys Glu Ser Ser Pro Arg Arg Arg Val Ser Cys
180 185 190
Gly Leu Cys Val Gly Tyr Ser Ser Gln Gly Glu Asp Val Ile Tyr Pro
195 200 205
Ile Leu Pro Ser Arg Ala Leu Pro Pro Cys Leu Tyr His Asn Leu Pro
210 215 220
Ser Ile Tyr Thr Ile Leu Leu Ser Arg Pro Ser Pro Leu Pro Tyr Leu
225 230 235 240
Tyr His His Pro Val Tyr Thr Ile His Pro Ser Thr Pro Ser Pro Leu
245 250 255
Leu Cys Leu Tyr His Pro Pro Val Tyr Thr Ser Thr Thr Thr Pro Ser
260 265 270
Ile Pro Pro Pro Arg Leu His Asn Pro Pro Val Tyr Thr Thr Met Ser
275 280 285
Pro Ser Ser Ala Pro Ser Ser Cys Leu His Trp His His Cys Pro Ser
290 295 300
Tyr Thr Thr Thr Pro Ser Thr
305 310

<210> 3435
<211> 1225
<212> DNA
<213> Homo sapiens

<400> 3435
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240
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420
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<210> 3436

<211> 408

<212> PRT

<213> Homo sapiens

<400> 3436

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		20					25					30			
Glu	Phe	Asn	Val	Ser	Cys	Leu	Thr	Asp	Ser	Asn	Ala	Asp	Thr	Tyr	Trp
	35					40				45					
Glu	Ser	Asp	Gly	Ser	Gln	Cys	Gln	His	Trp	Val	Arg	Leu	Thr	Met	Lys
	50				55					60					
Lys	Gly	Thr	Ile	Val	Lys	Lys	Leu	Leu	Leu	Ala	Val	Asp	Thr	Thr	Asp
65				70				75						80	
Asp	Asn	Phe	Met	Pro	Lys	Arg	Val	Val	Val	Tyr	Gly	Gly	Glu	Gly	Asp
		85					90						95		
Asn	Leu	Lys	Lys	Leu	Ser	Asp	Val	Ser	Ile	Asp	Xaa	Arg	Pro	Ser	Ser
		100					105						110		
Gly	Xaa	Val	Cys	Val	Leu	Glu	Asp	Met	Thr	Val	His	Leu	Pro	Ile	Ile
	115					120						125			
Glu	Ile	Arg	Ile	Val	Glu	Cys	Arg	Asp	Asp	Gly	Ile	Asp	Val	Arg	Leu
	130				135					140					
Arg	Gly	Val	Lys	Ile	Lys	Ser	Ser	Arg	Gln	Arg	Glu	Leu	Gly	Leu	Asn
145				150					155					160	
Ala	Asp	Leu	Phe	Gln	Pro	Thr	Ser	Leu	Val	Arg	Tyr	Pro	Arg	Leu	Glu
		165					170							175	
Gly	Thr	Asp	Pro	Glu	Val	Leu	Tyr	Arg	Arg	Ala	Val	Leu	Leu	Gln	Arg
	180					185						190			
Phe	Ile	Lys	Ile	Leu	Asp	Ser	Val	Leu	His	His	Leu	Val	Pro	Ala	Trp
	195					200						205			
Asp	His	Thr	Leu	Gly	Thr	Phe	Ser	Glu	Ile	Lys	Gln	Val	Lys	Gln	Phe
	210				215						220				
Leu	Leu	Leu	Ser	Arg	Gln	Arg	Pro	Gly	Leu	Val	Ala	Gln	Cys	Leu	Arg
225				230					235					240	
Asp	Ser	Glu	Ser	Ser	Lys	Pro	Ser	Phe	Met	Pro	Arg	Leu	Tyr	Ile	Asn
		245					250							255	
Arg	Arg	Leu	Ala	Met	Glu	His	Arg	Ala	Cys	Pro	Ser	Arg	Asp	Pro	Ala

260 265 270
Cys Lys Asn Ala Val Phe Thr Gln Val Tyr Glu Gly Leu Lys Pro Ser
275 280 285
Asp Lys Tyr Glu Lys Pro Leu Asp Tyr Arg Trp Pro Met Arg Tyr Asp
290 295 300
Gln Trp Trp Glu Cys Lys Phe Ile Ala Glu Gly Ile Ile Asp Gln Gly
305 310 315 320
Gly Gly Phe Arg Asp Ser Leu Ala Asp Met Ser Glu Glu Leu Cys Pro
325 330 335
Ser Ser Ala Asp Thr Pro Val Pro Leu Pro Phe Phe Val Arg Thr Ala
340 345 350
Asn Gln Gly Asn Gly Thr Gly Glu Ala Arg Asp Met Tyr Val Pro Asn
355 360 365
Pro Ser Cys Arg Asp Phe Ala Lys Tyr Glu Trp Ile Gly Gln Leu Met
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Gly Ala Ala Leu Arg Gly Lys Glu Phe Leu Val Leu Ala Leu Pro Gly
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Phe Val Trp Lys Gln Leu Ser Ala
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<210> 3437

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 3437

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2610

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1920
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1980
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2081

<210> 3438

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3438

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Arg	Pro	Pro	Lys	Arg	Asp	Phe	Gln	Val	Glu	Ala	Thr	Thr	Ala	Glu	Asp
			20				25						30		
Glu	Ala	Glu	Pro	Gln	Trp	Glu	Arg	Glu	Gly	Ala	Arg	Phe	Thr	Thr	Pro

35 40 45
Arg Gly Pro Arg Ser Ala Gly Ser Thr Glu Gly Val Pro Ser Gln Leu
50 55 60
Pro Leu Arg Val Pro Cys Leu Ala Thr Gln Pro Leu Pro Ala Gln Glu
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Pro Gly Arg Ala Gln Pro Arg Ala Gly Gly Ile Cys Glu Gly Ala
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Gly Arg Arg Gly Ala Ala Glu Asp Pro
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<210> 3439
<211> 1519
<212> DNA
<213> Homo sapiens

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960
ggccccggca catggagtgg ttcagagcgg cctgggtgcc tggcggacag aacttcagag
1020
accacgcagc cttccttcga agacgcacct gccagccca gccaggggt gccgtggagg
1080
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<213> Homo sapiens

<400> 3440

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Pro	Trp	Gly	Gly	Gly	Glu	Asp	Val	Ser	Ala	Gly	Pro	Leu	Xaa	Thr	Pro
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Gly	Arg	Gln	Ala	Ser	Thr	Pro	Thr	Leu	Gly	Asn	Ala	Glu	Pro	Leu	Arg
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Met	Cys	Ala	Arg	Gly	Arg	Val	Cys	Val	Phe	Leu	Arg	Val	Ser	Leu	Phe

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<212> DNA
<213> Homo sapiens

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<211> 374

<212> PRT

<213> Homo sapiens

<400> 3442

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Thr	Val	Asp	Pro	Cys	His	Lys	Phe	Thr	Trp	Cys	Leu	Asp	Ala	Cys	Ile
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Leu	Asp	Asp	Val	Lys	Lys	Gly	Gln	Glu	Gln	Val	Leu	Gly	Asp	Leu	Ser
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		100					105					110			
Val	Arg	His	Leu	Gln	Glu	Leu	Val	Gly	Gln	Glu	Thr	Leu	Pro	Arg	Asp
	115					120						125			
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245 250 255
His Leu Leu Thr Gly Asn Leu Ala Leu Leu Ala Asp Glu Phe Ala Leu
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Glu Asp Phe Cys Ser Ser Leu Phe Asp Gly Phe Phe Leu Thr Ala Ser
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<211> 2070

<212> DNA

<213> Homo sapiens

<400> 3443

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<211> 579

<212> PRT

<213> Homo sapiens

<400> 3444

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35 40 45
Cys Ser Leu Ser Phe Gln Ala Thr Lys Cys Lys Leu Ala Gly Leu Glu
50 55 60
Val Leu Ser Asp Asp Pro Asp Leu Val Lys Val Val Glu Ser Leu Thr
65 70 75 80
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85 90 95
Leu Val Val Leu Tyr Asp Thr Ser Gly Glu Asp Asp Ile Asn Ile Asn
100 105 110
Ala Thr Cys Leu Lys Ala Ile Cys Asp Lys Ser Leu Glu Val His Leu
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Gln Val Asp Ala Met Tyr Thr Asn Val Lys Ile Thr Asn Ile Cys Ser
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Asp Gly Thr Leu Tyr Cys Gln Val Pro Cys Lys Gly Leu Asn Lys Leu
145 150 155 160
Ser Asp Leu Leu Arg Lys Ile Glu Asp Tyr Phe His Cys Lys His Met
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Phe His Cys Lys Gly Lys Trp Leu Arg Val Glu Ile Thr Asn Val His
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225 230 235 240
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Arg Asp Ser Val Leu Asn Cys Ser Asp Cys Ser Ile Lys Val Thr Lys
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<211> 169

<212> PRT

<213> Homo sapiens

<400> 3446

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Ile Phe Asn Glu Tyr Ile Ser Leu Val Glu Lys Tyr Ile Glu Glu Gln
      65           70           75           80
Leu Leu Gln Arg Ile Pro Glu Phe Asn Met Ala Ala Phe Thr Thr Thr
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Leu His His Leu Phe Arg Leu Arg His His Lys Asp Glu Val Ala Gly
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Asp Ile Phe Asp Met Leu Leu Thr Phe Thr Asp Phe Leu Ala Phe Lys
      115          120          125
Glu Met Phe Leu Asp Tyr Arg Ala Glu Lys Glu Gly Arg Gly Leu Asp
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<212> PRT
<213> Homo sapiens

<400> 3448
Thr Arg Glu Gly Phe Ala Gly Lys Met Glu Tyr Pro Ala Pro Ala Thr
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Leu Leu Glu Gly Gln Glu Pro Asp Gly Val Arg Phe Asp Arg Glu Arg
35 40 45
Ala Arg Arg Leu Trp Glu Ala Val Ser Gly Ala Gln Pro Val Gly Arg
50 55 60
Glu Glu Val Glu His Met Ile Gln Lys Asn Gln Cys Leu Phe Thr Asn
65 70 75 80
Thr Gln Cys Lys Val Cys Cys Ala Leu Leu Ile Ser Glu Ser Gln Lys
85 90 95
Leu Ala His Tyr Gln Ser Lys Lys His Ala Asn Lys Val Lys Arg Tyr
100 105 110
Leu Ala Ile His Gly Met Glu Thr Leu Lys Gly Glu Thr Lys Lys Leu
115 120 125
Asp Ser Asp Gln Lys Ser Ser Arg Ser Lys Asp Lys Asn Gln Cys Cys
130 135 140
Pro Ile Cys Asn Met Thr Phe Ser Ser Pro Val Val Ala Gln Ser His
145 150 155 160
Tyr Leu Gly Lys Thr His Ala Lys Asn Leu Lys Leu Lys Gln Gln Ser
165 170 175
Thr Lys Val Glu Ala Leu His Gln Asn Arg Glu Met Ile Asp Pro Asp
180 185 190
Lys Phe Cys Ser Leu Cys His Ala Thr Phe Asn Asp Pro Val Met Ala
195 200 205
Gln Gln His Tyr Val Gly Lys Lys His Arg Lys Gln Glu Thr Lys Leu
210 215 220
Lys Leu Met Ala Arg Tyr Gly Arg Leu Ala Asp Pro Ala Val Thr Asp
225 230 235 240
Phe Pro Ala Gly Lys Gly Tyr Pro Cys Lys Thr Cys Lys Ile Val Leu
245 250 255
Asn Ser Ile Glu Gln Tyr Gln Ala His Val Ser Gly Phe Lys His Lys
260 265 270
Asn Gln Ser Pro Lys Thr Val Ala Ser Ser Leu Gly Gln Ile Pro Met
275 280 285
Gln Arg Gln Pro Ile Gln Lys Asp Ser Thr Thr Leu Glu Asp
290 295 300

<210> 3449
<211> 877

<212> DNA

<213> Homo sapiens

<400> 3449

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780
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<210> 3450

<211> 276

<212> PRT

<213> Homo sapiens

<400> 3450

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20 25 30
Ser Val Thr Ala Asn Ser Gln Ser Pro Ala Leu Leu Ala Gly Thr Asn
35 40 45
Pro Val Ala Val Val Ala Asp Gly Gly Ser Cys Pro Ala His Tyr Pro
50 55 60
Val His Glu Cys Val Phe Lys Gly Asp Val Arg Arg Leu Ser Ser Leu
65 70 75 80
Ile Arg Thr His Asn Ile Gly Gln Lys Asp Asn His Gly Asn Thr Pro
85 90 95
Leu His Leu Ala Val Met Leu Gly Asn Lys Glu Cys Ala His Leu Leu

100 105 110
Leu Ala His Asn Ala Pro Val Lys Val Lys Asn Ala Gln Gly Trp Ser
115 120 125
Pro Leu Ala Glu Ala Ile Ser Tyr Gly Asp Arg Gln Met Ile Thr Ala
130 135 140
Leu Leu Arg Lys Leu Lys Gln Gln Ser Arg Glu Ser Val Glu Glu Lys
145 150 155 160
Arg Pro Arg Leu Leu Lys Ala Leu Lys Glu Leu Gly Asp Phe Tyr Leu
165 170 175
Glu Leu His Trp Asp Phe Gln Ser Trp Val Pro Leu Leu Ser Arg Ile
180 185 190
Leu Pro Ser Asp Ala Cys Lys Ile Tyr Lys Gln Gly Ile Asn Ile Arg
195 200 205
Leu Asp Thr Thr Leu Ile Asp Phe Thr Asp Met Lys Cys Gln Arg Gly
210 215 220
Asp Leu Ser Phe Ile Phe Asn Gly Asp Ala Ala Pro Ser Glu Ser Phe
225 230 235 240
Val Val Leu Asp Asn Glu Gln Lys Val Tyr Gln Arg Ile His His Glu
245 250 255
Ala His Ile Pro Gly Ile Arg Asp Gly Asn Arg Arg Arg Gly Gly Tyr
260 265 270
Phe Asn Glu Gln
275

<210> 3451
<211> 595
<212> DNA
<213> Homo sapiens

<400> 3451
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120
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180
cccagcatga acctctggct tgtggagatg tcttcagct ggaaacctga gtgagcgaag
240
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300
gtctgaagga tctgatcttg ggttgcttta cttagtcctt cgtggtattg gtgtgtgtca
360
atgctggagt ccctcagctc cttagctgaa aagagctgaa ggggccttgg aacctggggg
420
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480
tcattaactt cctctctggt gctattttct gttgtgttgg tagctatgag cgtcccatc
540
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595

<210> 3452
<211> 192
<212> PRT

<213> Homo sapiens

<400> 3452

Met Glu Ala Val Pro Leu Pro Ala Lys Glu Glu Arg Gly Met Gly Ala
1 5 10 15
Leu Ile Ala Thr Asn Thr Thr Glu Asn Ser Thr Arg Glu Glu Val Asn
20 25 30
Glu Arg Gln Ser His Pro Ala Thr Gln Gln Gln Leu Gly Lys Thr Leu
35 40 45
Gln Ser Lys Gln Leu Pro Gln Val Pro Arg Pro Leu Gln Leu Phe Ser
50 55 60
Ala Lys Glu Leu Arg Asp Ser Ser Ile Asp Thr His Gln Tyr His Glu
65 70 75 80
Gly Leu Ser Lys Ala Thr Gln Asp Gln Ile Leu Gln Thr Leu Ile Gln
85 90 95
Arg Val Arg Arg Gln Asn Leu Leu Ser Val Val Pro Pro Ser Gln Phe
100 105 110
Asn Phe Ala His Ser Gly Phe Gln Leu Glu Asp Ile Ser Thr Ser Gln
115 120 125
Arg Phe Met Leu Gly Phe Ala Gly Arg Arg Thr Ser Lys Pro Ala Met
130 135 140
Ala Gly His Tyr Leu Leu Asn Ile Ser Thr Tyr Gly Arg Gly Ser Glu
145 150 155 160
Ser Phe Arg Arg Thr His Ser Val Asn Pro Glu Asp Arg Phe Cys Leu
165 170 175
Ser Ser Pro Thr Glu Ala Leu Lys Met Gly Tyr Thr Asn Cys Lys Asn
180 185 190

<210> 3453

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3453

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180
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240
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300
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360
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477

<210> 3454

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3454

Xaa Arg Val Lys Gly Pro Gly Arg Gly Ala Gly Gly Leu Arg Gly Glu
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 Lys Met Ala Ala Ala Ala Ala Gly Ala Ala Ser Gly Leu Pro Gly
 20 25 30
 Pro Val Ala Gln Gly Leu Lys Glu Ala Leu Val Asp Thr Leu Thr Gly
 35 40 45
 Ile Leu Ser Pro Val Gln Glu Val Arg Ala Ala Ala Glu Glu Gln Ile
 50 55 60
 Lys Val Leu Glu Val Thr Glu Glu Phe Gly Val His Leu Ala Glu Leu
 65 70 75 80
 Thr Val Asp Pro Gln Gly Ala Leu Ala Ile Arg Gln Leu Ala Ser Val
 85 90 95
 Ile Leu Lys Gln Tyr Val Glu Thr His Trp Cys Ala Gln Ser Glu Lys
 100 105 110
 Phe Arg Pro Pro Glu Thr Thr Glu Arg Ala Lys Ile Val Ile Arg Glu
 115 120 125
 Leu Leu Pro Asn Gly Leu Arg Glu Ser Ile Ser Lys Val Arg Ser Ser
 130 135 140
 Val Ala Tyr Ala Val Ser Ala Ile Ala His Trp Asp Trp Pro Glu
 145 150 155

<210> 3455

<211> 4886

<212> DNA

<213> Homo sapiens

<400> 3455

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<210> 3456

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3456

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		20						25					30		
Pro	Pro	Cys	Pro	Arg	Leu	Asn	Gly	Val	Leu	Met	Glu	Val	Glu	Glu	Pro
		35					40					45			
Glu	Val	Leu	Gln	Asp	Ser	Leu	Asp	Arg	Cys	Tyr	Ser	Thr	Pro	Ser	Met
	50					55					60				
Tyr	Phe	Glu	Leu	Pro	Asp	Ser	Phe	Gln	His	Tyr	Arg	Ser	Val	Phe	Tyr
65					70					75				80	
Ser	Phe	Glu	Glu	Glu	His	Ile	Ser	Phe	Ala	Leu	Tyr	Val	Asp	Asn	Arg
			85						90					95	
Phe	Phe	Thr	Leu	Thr	Val	Thr	Ser	Leu	His	Leu	Val	Phe	Gln	Met	Gly
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Val	Ile	Phe	Pro	Gln											

115

<210> 3457
<211> 646
<212> DNA
<213> Homo sapiens

<400> 3457
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540
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646

<210> 3458
<211> 61
<212> PRT
<213> Homo sapiens

<400> 3458
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Arg Cys Val Xaa Val Pro Gly Cys Val Cys Ala Cys Val Cys Val Asp
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Ile Cys Ala Cys Leu Phe Thr His Arg Trp Glu Cys Arg Val Cys Ile
35 40 45
Leu Cys Xaa Cys Thr Cys Thr Gln Ala Xaa Ala Gly Lys
50 55 60

<210> 3459
<211> 592
<212> DNA
<213> Homo sapiens

<400> 3459
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60

2630

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120
gacctactt cactgcaggg ggctcagccc agtctgcctc aggcagaaca agggctctggg
180
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480
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592

<210> 3460

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3460

Met	Gly	Pro	Ser	Gly	Pro	Ala	Ala	Thr	Pro	Thr	Thr	Trp	Asp	Leu	Pro
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Ser	Gly	Pro	Ala	Arg	Ile	Pro	Val	Leu	Pro	Cys	Ser	Pro	Gln	Leu	Pro
			20					25					30		
Gly	Pro	Ser	Leu	Cys	Ala	Ala	Ser	Val	Cys	Leu	Leu	Gln	Asn	Lys	His
			35				40					45			
His	Ala	Pro	Ser	Trp	Ala	Glu	Ala	Pro	Ala	Asp	Ser	Pro	Arg	Ala	Leu
	50					55				60					
Gln	Ala	Cys	Pro	Val	Leu	Cys	Gln	Ala	Gly	Pro	Gly	His	Val	Pro	Ala
65					70				75					80	
Pro	Gly	Ala	Gly	Leu	Gln	Arg	Gly	Gln	Trp	Ser	Ala	Leu	Lys	Thr	Val
			85					90					95		
Ile	Pro	Ala	Arg	Pro	Ala	Leu	Pro	Cys	Ser	Ala	Arg	Gly	Gln	Phe	Glu
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Leu	Lys	Leu													
															115

<210> 3461

<211> 474

<212> DNA

<213> Homo sapiens

<400> 3461

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120
agctttgcgt ccgtggcaga tgtagctcc agtcgcagcc gcaccttccg gatggccctg
180

ctggaagcca gcatcggggg ggctgggatg ctggcaagcc tcctcggggg ccaactggctc
240
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<210> 3462
<211> 101
<212> PRT
<213> Homo sapiens

<400> 3462
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35 40 45
Cys Phe Gly Glu Thr Leu Lys Glu Pro Lys Ser Thr Arg Leu Phe Thr
50 55 60
Phe Arg His His Arg Ser Ile Val Gln Leu Tyr Val Ala Pro Ala Pro
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<210> 3463
<211> 1734
<212> DNA
<213> Homo sapiens

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<210> 3464

<211> 434

<212> PRT

<213> Homo sapiens

<400> 3464

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35 40 45
Pro Asn Tyr Leu Met Ala Asn Glu Arg Met Asn Leu Met Asn Met Ala
50 55 60
Lys Leu Ser Ile Lys Gly Leu Ile Glu Ser Ala Leu Asn Leu Gly Arg
65 70 75 80
Thr Leu Asp Ser Asp Tyr Ala Pro Leu Gln Gln Phe Phe Val Val Met
85 90 95
Glu His Cys Leu Lys His Gly Leu Lys Ala Lys Lys Thr Phe Leu Gly
100 105 110
Gln Asn Lys Ser Phe Trp Gly Pro Leu Glu Leu Val Glu Lys Leu Val
115 120 125
Pro Glu Ala Ala Glu Ile Thr Ala Ser Val Lys Asp Leu Pro Gly Leu
130 135 140
Lys Thr Pro Val Gly Arg Gly Arg Ala Trp Leu Arg Leu Ala Leu Met
145 150 155 160
Gln Lys Lys Leu Ser Glu Tyr Met Lys Ala Leu Ile Asn Lys Lys Glu
165 170 175
Leu Leu Ser Glu Phe Tyr Glu Pro Asn Ala Leu Met Met Glu Glu Glu
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Gly Ala Ile Ile Ala Gly Leu Leu Val Gly Leu Asn Val Ile Asp Ala
195 200 205
Asn Phe Cys Met Lys Gly Glu Asp Leu Asp Ser Gln Val Gly Val Ile
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Asp Phe Ser Met Tyr Leu Lys Asp Gly Asn Ser Ser Lys Gly Thr Glu
225 230 235 240
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Glu Leu Asn Arg His Leu Asn Ala Thr Val Asn Asn Leu Gln Ala Lys
260 265 270
Val Asp Ala Leu Glu Lys Ser Asn Thr Lys Leu Thr Glu Glu Leu Ala
275 280 285
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Lys Glu Glu Ser Ser Tyr Ile Leu Glu Ser Asn Arg Lys Gly Pro Lys
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Glu Lys Asp Val Cys Glu Lys Gln Asp Ala Leu Val Ser Leu Arg Gln
370 375 380
Gln Leu Asp Asp Leu Arg Ala Leu Lys His Glu Leu Ala Phe Lys Leu
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<210> 3465

<211> 2904

<212> DNA

<213> Homo sapiens

<400> 3465

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2880
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<211> 315
<212> PRT
<213> Homo sapiens

<400> 3466
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 Gly Arg His Arg Lys Leu Pro Glu Asn Trp Thr Asp Thr Arg Glu Thr
 35 40 45
 Leu Leu Glu Gly Met Leu Phe Ser Leu Lys Tyr Leu Gly Met Thr Leu
 50 55 60
 Val Glu Gln Pro Lys Gly Glu Glu Leu Ser Ala Ala Ile Lys Arg
 65 70 75 80
 Ile Val Ala Thr Ala Lys Ala Ser Gly Lys Lys Leu Gln Lys Val Thr
 85 90 95
 Leu Lys Val Ser Pro Arg Gly Ile Ile Leu Thr Asp Asn Leu Thr Asn
 100 105 110
 Gln Leu Ile Glu Asn Val Ser Ile Tyr Arg Ile Ser Tyr Cys Thr Ala
 115 120 125
 Asp Lys Met His Asp Lys Val Phe Ala Tyr Ile Ala Gln Ser Gln His
 130 135 140
 Asn Gln Ser Leu Glu Cys His Ala Phe Leu Cys Thr Lys Arg Lys Met
 145 150 155 160
 Ala Gln Ala Val Thr Leu Thr Val Ala Gln Ala Phe Lys Val Ala Phe
 165 170 175
 Glu Phe Trp Gln Val Ser Lys Glu Glu Lys Glu Lys Arg Asp Lys Ala
 180 185 190
 Ser Gln Glu Gly Gly Asp Val Leu Gly Ala Arg Gln Asp Cys Thr Pro
 195 200 205
 Pro Leu Lys Ser Leu Val Ala Thr Gly Asn Leu Leu Asp Leu Glu Glu
 210 215 220
 Thr Ala Lys Ala Pro Leu Ser Thr Val Ser Ala Asn Thr Thr Asn Met
 225 230 235 240
 Asp Glu Val Pro Arg Pro Gln Ala Leu Ser Gly Ser Ser Val Val Trp
 245 250 255
 Glu Leu Asp Asp Gly Leu Asp Glu Ala Phe Ser Arg Leu Ala Gln Ser
 260 265 270
 Arg Thr Asn Pro Gln Val Leu Asp Thr Gly Leu Thr Ala Gln Asp Met
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 His Tyr Ala Gln Cys Leu Ser Pro Val Asp Trp Asp Lys Pro Asp Ser
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 Ser Gly Thr Glu Gln Asp Asp Leu Phe Ser Phe
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<210> 3467
 <211> 638
 <212> DNA
 <213> Homo sapiens

<400> 3467
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<210> 3468

<211> 88

<212> PRT

<213> Homo sapiens

<400> 3468

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			20					25					30		
Trp	Leu	Cys	Tyr	Thr	Ser	Cys	Tyr	Gln	Gln	Asn	Arg	Val	Ser	Leu	Gly
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Gln	Ser	Cys	Gly	Tyr	Thr	Ser	Val	Ser	Gln	Asp	Phe	Leu	Cys	Gln	Arg
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Ala	Val	Lys	Leu	Arg	Thr	Lys	Val	Ile	Lys	Ile	Gln	Leu	Tyr	Tyr	Trp
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<210> 3469

<211> 1710

<212> DNA

<213> Homo sapiens

<400> 3469

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<210> 3470
<211> 322
<212> PRT
<213> Homo sapiens

<400> 3470
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35 40 45
Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala
50 55 60
Arg Val Glu Lys Ile Phe Thr Pro Ala Ala Pro Val His Thr Asn Lys
65 70 75 80
Glu Asp Pro Ala Thr Gln Thr Asn Leu Gly Phe Ile His Ala Phe Val
85 90 95
Ala Ala Ile Ser Val Ile Ile Val Ser Glu Leu Gly Asp Lys Thr Phe
100 105 110
Phe Ile Ala Ala Ile Met Ala Met Arg Tyr Asn Arg Leu Thr Val Leu
115 120 125
Ala Gly Ala Met Leu Ala Leu Gly Leu Met Thr Cys Leu Ser Val Leu
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Phe Gly Tyr Ala Thr Thr Val Ile Pro Arg Val Tyr Thr Tyr Tyr Val
145 150 155 160
Ser Thr Val Leu Phe Ala Ile Phe Gly Ile Arg Met Leu Arg Glu Gly
165 170 175
Leu Lys Met Ser Pro Asp Glu Gly Gln Glu Glu Leu Glu Glu Val Gln
180 185 190
Ala Glu Leu Lys Lys Lys Asp Glu Glu Phe Gln Arg Thr Lys Leu Leu
195 200 205
Asn Gly Pro Gly Asp Val Glu Thr Gly Thr Ser Ile Thr Val Pro Gln
210 215 220
Lys Lys Trp Leu His Phe Ile Ser Pro Ile Phe Val Gln Ala Leu Thr
225 230 235 240
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245 250 255
Val Leu Ala Ala Arg Glu Asp Pro Tyr Gly Val Ala Val Gly Gly Thr
260 265 270
Val Gly His Cys Leu Cys Thr Gly Leu Ala Val Ile Gly Gly Arg Met
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Ile Ala Gln Lys Ile Ser Val Arg Thr Val Thr Ile Ile Gly Gly Ile
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<210> 3471
<211> 2335
<212> DNA
<213> Homo sapiens

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1800

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2160
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2220
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2335

<210> 3472

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3472

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Val	Val	Ala	Thr	Ala	Asp	Gly	Ser	Ser	Ala	Ser	Pro	Val	Gln	Phe	Tyr
			20				25						30		
Lys	Val	Cys	Val	Ser	Val	Val	Ser	Glu	Lys	Cys	Arg	Ile	Asp	Thr	Glu
		35				40					45				
Ile	Leu	Pro	Ser	Leu	Phe	Met	Arg	Cys	Thr	Thr	Asp	Leu	Asn	Arg	Lys
	50				55					60					
Asp	Lys	Phe	Pro	Ala	Ile	Thr	His	Leu	Lys	Phe	Leu	Ala	Arg	Asp	Met
65				70				75						80	
Ser	Glu	Gln	Val	Leu	Leu	Cys	Ala	Ser	Ser	Gln	Thr	Ser	Ser	Ile	Val
			85					90						95	
Glu	Cys	Trp	Ser	Leu	Arg	Lys	Glu	Gly	Leu	Pro	Val	Asn	Asn	Ile	Phe
		100					105							110	
Gln	Gln	Ile	Ser	Pro	Val	Val	Gly	Asp	Lys	Gln	Pro	Thr	Ile	Leu	Lys
		115				120						125			
Trp	Arg	Ile	Leu	Ser	Ala	Thr	Asn	Asp	Leu	Asp	Arg	Val	Ser	Ala	Val
	130				135						140				
Ala	Leu	Pro	Lys	Leu	Pro	Ile	Ser	Leu	Thr	Asn	Thr	Asp	Leu	Lys	Val
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Ala	Ser	Asp	Thr	Gln	Phe	Tyr	Pro	Gly	Leu	Gly	Leu	Ala	Leu	Ala	Phe
			165					170						175	
His	Asp	Gly	Ser	Val	His	Ile	Val	His	Arg	Leu	Ser	Leu	Gln	Thr	Met
		180					185						190		
Ala	Val	Phe	Tyr	Ser	Ser	Ala	Ala	Pro	Arg	Pro	Val	Asp	Glu	Pro	Ala
	195					200						205			
Met	Lys	Arg	Pro	Arg	Thr	Ala	Gly	Pro	Ala	Val	His	Leu	Lys	Ala	Met
	210				215						220				
Gln	Leu	Ser	Trp	Thr	Ser	Leu	Ala	Leu	Val	Gly	Ile	Asp	Ser	His	Gly

225 230 235 240
Lys Leu Ser Val Leu Arg Leu Ser Pro Ser Met Gly His Pro Leu Glu
 245 250 255
Val Gly Leu Ala Leu Arg His Leu Leu Phe Leu Leu Glu Tyr Cys Met
 260 265 270
Val Thr Gly Tyr Asp Trp Trp Asp Ile Leu Leu His Val Gln Pro Ser
 275 280 285
Met Val Gln Ser Leu Val Glu Lys Leu His Glu Glu Tyr Thr Arg Gln
 290 295 300
Thr Ala Ala Leu Gln Gln Val Leu Ser Thr Arg Ile Leu Ala Met Lys
305 310 315 320
Ala Ser Leu Cys Lys Leu Ser Pro Cys Thr Val Thr Arg Val Cys Asp
 325 330 335
Tyr His Thr Lys Leu Phe Leu Ile Ala Ile Ser Ser Thr Leu Lys Ser
 340 345 350
Leu Leu Arg Pro His Phe Leu Asn Thr Pro Asp Lys Ser Pro Gly Asp
 355 360 365
Arg Leu Thr Glu Ile Cys Thr Lys Ile Thr Asp Val Asp Ile Asp Lys
 370 375 380
Val Met Ile Asn Leu Lys Thr Glu Glu Phe Val Leu Asp Met Asn Thr
385 390 395 400
Leu Gln Ala Leu Gln Gln Leu Leu Gln Trp Val Gly Asp Phe Val Leu
 405 410 415
Tyr Leu Leu Ala Ser Leu Pro Asn Gln Gly Ser Leu Leu Arg Pro Gly
 420 425 430
His Ser Phe Leu Arg Asp Gly Thr Ser Leu Gly Met Leu Arg Glu Leu
 435 440 445
Met Val Val Ile Arg Ile Trp Gly Leu Leu Lys Pro Ser Cys Leu Pro
 450 455 460
Val Tyr Thr Ala Thr Ser Asp Thr Gln Asp Ser Met Ser Leu Leu Phe
465 470 475 480
Arg Leu Leu Thr Lys Leu Trp Ile Cys Cys Arg Asp Glu Gly Pro Ala
 485 490 495
Ser Glu Pro Asp Glu Ala Leu Val Asp Glu Cys Cys Leu Leu Pro Ser
 500 505 510
Gln Leu Leu Ile Pro Ser Leu Asp Trp Leu Pro Ala Ser Asp Gly Leu
 515 520 525
Val Ser Arg Leu Gln Pro Lys Gln Pro Leu Arg Leu Gln Phe Gly Arg
 530 535 540
Ala Pro Thr Leu Pro Gly Ser Ala Ala Thr Leu Gln Leu Asp Gly Leu
545 550 555 560
Ala Arg Ala Pro Gly Gln Pro Lys Ile Asp His Leu Arg Arg Leu His
 565 570 575
Leu Gly Ala Cys Pro Thr Glu Glu Cys Lys Ala Cys Thr Arg Cys Gly
 580 585 590
Cys Val Thr Met Leu Lys Ser Pro Asn Arg Thr Thr Ala Val Lys Gln
 595 600 605
Trp Glu Gln Arg Trp Ile Lys Asn Cys Leu Cys Gly Gly Leu Trp Trp
 610 615 620
Arg Val Pro Leu Ser Tyr Pro
625 630

<210> 3473

<211> 1660

<212> DNA

<213> Homo sapiens

<400> 3473

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120
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180
ccattaaacg agggttttct ttctagaatc tetggtctgc tgctgtgcag atggacctgc
240
cggcactgct gtcagaagtg ctacgagtcc agctgttgcc agtcaagtga ggatgaagtt
300
gaaattcttg gacctttccc tgctcagacc cctccctggc tgatggccag ccggagcagt
360
gacaaggatg gtgactctgt ccacacggcc agcgaagtcc cgctgacccc acggaccaat
420
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480
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540
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600
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660
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720
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780
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840
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900
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960
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1080
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1200
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1380
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1440
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1500

cgcacagccg tggagcagtg gcatagcctg aggtcccag ctgagtgtga ccgcgtgtct
1560
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1660

<210> 3474

<211> 474

<212> PRT

<213> Homo sapiens

<400> 3474

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Lys Cys Tyr Glu Ser Ser Cys Cys Gln Ser Ser Glu Asp Glu Val Glu
35 40 45
Ile Leu Gly Pro Phe Pro Ala Gln Thr Pro Pro Trp Leu Met Ala Ser
50 55 60
Arg Ser Ser Asp Lys Asp Gly Asp Ser Val His Thr Ala Ser Glu Val
65 70 75 80
Pro Leu Thr Pro Arg Thr Asn Ser Pro Asp Gly Arg Arg Ser Ser Ser
85 90 95
Asp Thr Ser Lys Ser Thr Tyr Ser Leu Thr Arg Arg Ile Ser Ser Leu
100 105 110
Glu Ser Arg Arg Pro Ser Ser Pro Leu Ile Asp Ile Lys Pro Ile Glu
115 120 125
Phe Gly Val Leu Ser Ala Lys Lys Glu Pro Ile Gln Pro Ser Val Leu
130 135 140
Arg Arg Thr Tyr Asn Pro Asp Asp Tyr Phe Arg Lys Phe Glu Pro His
145 150 155 160
Leu Tyr Ser Leu Asp Ser Asn Ser Asp Asp Val Asp Ser Leu Thr Asp
165 170 175
Glu Glu Ile Leu Ser Lys Tyr Gln Leu Gly Met Leu His Phe Ser Thr
180 185 190
Gln Tyr Asp Leu Leu His Asn His Leu Thr Val Arg Val Ile Glu Ala
195 200 205
Arg Asp Leu Pro Pro Pro Ile Ser His Asp Gly Ser Arg Gln Asp Met
210 215 220
Ala His Ser Asn Pro Tyr Val Lys Ile Cys Leu Leu Pro Asp Gln Lys
225 230 235 240
Asn Ser Lys Gln Thr Gly Val Lys Arg Lys Thr Gln Lys Pro Val Phe
245 250 255
Glu Glu Arg Tyr Thr Phe Glu Ile Pro Phe Leu Glu Ala Gln Arg Arg
260 265 270
Thr Leu Leu Leu Thr Val Val Asp Phe Asp Lys Phe Ser Arg His Cys
275 280 285
Val Ile Gly Lys Val Ser Val Pro Leu Cys Glu Val Asp Leu Val Lys
290 295 300
Gly Gly His Trp Trp Lys Ala Leu Ile Pro Ser Ser Gln Asn Glu Val
305 310 315 320
Glu Leu Gly Glu Leu Leu Leu Ser Leu Asn Tyr Leu Pro Ser Ala Gly

325 330 335
 Arg Leu Asn Val Asp Val Ile Arg Ala Lys Gln Leu Leu Gln Thr Asp
 340 345 350
 Val Ser Gln Gly Ser Asp Pro Phe Val Lys Ile Gln Leu Val His Gly
 355 360 365
 Leu Lys Leu Val Lys Thr Lys Lys Thr Ser Phe Leu Arg Gly Thr Ile
 370 375 380
 Asp Pro Phe Tyr Asn Glu Ser Phe Ser Phe Lys Val Pro Gln Glu Glu
 385 390 395 400
 Leu Glu Asn Ala Ser Leu Val Phe Thr Val Phe Gly His Asn Met Lys
 405 410 415
 Ser Ser Asn Asp Phe Ile Gly Arg Ile Val Ile Gly Gln Tyr Ser Ser
 420 425 430
 Gly Pro Ser Glu Thr Asn His Trp Arg Arg Met Leu Asn Thr His Arg
 435 440 445
 Thr Ala Val Glu Gln Trp His Ser Leu Arg Ser Arg Ala Glu Cys Asp
 450 455 460
 Arg Val Ser Pro Ala Ser Leu Glu Val Thr
 465 470

<210> 3475
 <211> 514
 <212> DNA
 <213> Homo sapiens

<400> 3475
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 240
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 300
 tatgggcttc tcaactggat caccttcaat gtgggctacc acgtggagca ccacgacttc
 360
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 420
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 480
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 514

<210> 3476
 <211> 171
 <212> PRT
 <213> Homo sapiens

<400> 3476
 Thr Arg Leu Glu Gly Trp Phe Phe Cys Thr Pro Ala Arg Lys Leu Leu
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 Trp Leu Val Leu Gln Pro Phe Phe Tyr Ser Leu Arg Pro Leu Cys Val

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      20      25      30
His Pro Lys Ala Val Thr Arg Met Glu Val Leu Asn Thr Leu Val Gln
      35      40      45
Leu Ala Ala Asp Leu Ala Ile Phe Ala Leu Trp Gly Leu Lys Pro Val
      50      55      60
Val Tyr Leu Leu Ala Ser Ser Phe Leu Gly Leu Gly Leu His Pro Ile
65      70      75      80
Ser Gly His Phe Val Ala Glu His Tyr Met Phe Leu Lys Gly His Glu
      85      90      95
Thr Tyr Ser Tyr Tyr Gly Pro Leu Asn Trp Ile Thr Phe Asn Val Gly
      100      105      110
Tyr His Val Glu His His Asp Phe Pro Ser Ile Pro Gly Tyr Asn Leu
      115      120      125
Pro Leu Val Arg Lys Ile Ala Pro Glu Tyr Tyr Asp His Leu Pro Gln
      130      135      140
His His Ser Trp Val Lys Val Leu Trp Asp Phe Val Phe Glu Asp Ser
145      150      155      160
Leu Gly Pro Tyr Ala Arg Val Lys Arg Val Tyr
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<210> 3477
 <211> 356
 <212> DNA
 <213> Homo sapiens

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<400> 3477
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120
gtggcctttg actttgctgc ccgagagatg gctccaaata tggcagagtg ggaccagaag
180
gtaggcggtt ttcttgctgt tagacgttct aacaacagat gtctcaggca gacctttatc
240
tttgtctccc gataatgtaa ttgttaaag tctctccac ttaccaactc ttactgcaag
300
tgagaatacc ggtagtggat gatttttctt agaaggcatc ctgatcatct tgtaca
356

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<210> 3478
 <211> 116
 <212> PRT
 <213> Homo sapiens

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<400> 3478
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Leu Ala Val Arg Val Gly Lys Trp Arg Arg His Leu Thr Ile Thr Leu
      20      25      30
Ser Gly Asp Lys Asp Lys Gly Leu Pro Glu Thr Ser Val Val Arg Thr
      35      40      45
Ser Lys His Lys Lys Asn Ala Tyr Leu Leu Val Pro Leu Cys His Ile
      50      55      60
Trp Ser His Leu Ser Gly Ser Lys Val Lys Gly His Phe Leu Lys Phe

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65 70 75 80
 Phe Leu Leu Phe Ile Lys Ser His Gly Arg Val Asp Ala Gly Gly Gln
 85 90 95
 Ala Pro Val Ala Gly Leu Asp Glu Asp Pro Glu Thr Ala Gly Gln Ala
 100 105 110
 Ala Glu Ala Arg
 115

<210> 3479
 <211> 797
 <212> DNA
 <213> Homo sapiens

<400> 3479
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 120
 gagtatctca tgtacctcaa caccgagggt gggagaacct gcaatgacta catgcagtac
 180
 ccagtgttcc cctgggtcct cgcagactac acctcagaga cattgaactt ggcaaattccg
 240
 aagattttcc gggatctttc aaagcccatg ggggctcaga ccaaggaaag gaagctgaaa
 300
 tttatccaga ggtttaaaga agttgagaaa actgaaggag acatgactgc ccagtgccac
 360
 tactacaccc actactcctc ggccatcctc gtggcctcct acctgggtccg gatgccaccc
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 660
 ccaacaaagt cttgcaaaat gattctaaaa aataagaaat gagacatgaa aaaaatgatt
 720
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 780
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 797

<210> 3480
 <211> 192
 <212> PRT
 <213> Homo sapiens

<400> 3480
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 Gln Lys Arg Asp Ile Ser Asn Phe Glu Tyr Leu Met Tyr Leu Asn Thr

35 40 45
Ala Ala Gly Arg Thr Cys Asn Asp Tyr Met Gln Tyr Pro Val Phe Pro
50 55 60
Trp Val Leu Ala Asp Tyr Thr Ser Glu Thr Leu Asn Leu Ala Asn Pro
65 70 75 80
Lys Ile Phe Arg Asp Leu Ser Lys Pro Met Gly Ala Gln Thr Lys Glu
85 90 95
Arg Lys Leu Lys Phe Ile Gln Arg Phe Lys Glu Val Glu Lys Thr Glu
100 105 110
Gly Asp Met Thr Ala Gln Cys His Tyr Tyr Thr His Tyr Ser Ser Ala
115 120 125
Ile Ile Val Ala Ser Tyr Leu Val Arg Met Pro Pro Phe Thr Gln Ala
130 135 140
Phe Cys Ala Leu Gln Val Ser Cys Cys His Ser Leu Tyr Thr His Thr
145 150 155 160
His Thr His Thr His Thr Tyr Ala Cys Ile Thr Arg Leu Arg Pro Val
165 170 175
Leu Glu Gln Arg Gln Asp Ala Ser Ala Lys Asn Leu Val Ile Ser Gln
180 185 190

<210> 3481

<211> 1794

<212> DNA

<213> Homo sapiens

<400> 3481

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120
atgaggtcct gaccagaggg tcttctgcca atgcctccaa gtggtcacca cctcagctct
180
gcagaccctg cgggtgctggg agccaccatg gagagtaggt gctacggctg cgctgtcaag
240
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480
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540
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660
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720
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780
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840

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1794

<210> 3482

<211> 206

<212> PRT

<213> Homo sapiens

<400> 3482

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			20				25						30		
Leu	Phe	Lys	Lys	Glu	Tyr	Gly	Cys	Lys	Asn	Cys	Gly	Arg	Xaa	Phe	Cys
		35				40					45				
Ser	Gly	Cys	Leu	Ser	Phe	Ser	Ala	Ala	Val	Pro	Arg	Thr	Gly	Asn	Thr
	50				55					60					
Gln	Gln	Lys	Val	Cys	Lys	Gln	Cys	His	Glu	Val	Leu	Thr	Arg	Gly	Ser
65				70					75					80	
Ser	Ala	Asn	Ala	Ser	Lys	Trp	Ser	Pro	Pro	Gln	Asn	Tyr	Lys	Lys	Arg
			85					90						95	
Val	Ala	Ala	Leu	Glu	Ala	Lys	Gln	Lys	Pro	Ser	Thr	Ser	Gln	Ser	Gln
			100				105						110		
Gly	Leu	Thr	Arg	Gln	Asp	Gln	Met	Ile	Ala	Glu	Arg	Leu	Ala	Arg	Leu

115 120 125
 Arg Gln Glu Asn Lys Pro Lys Leu Val Pro Ser Gln Ala Glu Ile Glu
 130 135 140
 Ala Arg Leu Ala Ala Leu Lys Asp Glu Arg Gln Gly Ser Ile Pro Ser
 145 150 155 160
 Thr Gln Glu Met Glu Ala Arg Leu Ala Ala Leu Gln Gly Arg Val Leu
 165 170 175
 Pro Ser Gln Thr Pro Gln Pro Gly Thr Ser His Thr Gly His Gln Asp
 180 185 190
 Pro Ser Pro Ala Asp Thr Gly Ser Ala Asn Ala Ala Gly Ser
 195 200 205

<210> 3483
 <211> 477
 <212> DNA
 <213> Homo sapiens

<400> 3483
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 120
 aagtacccgg ccatcaaggc cctgatgcgg ccagacccgc gcctcaagtg ggcggggctg
 180
 gtgctgggtgc tgggtgcagat gctggcctgc tggctgggtgc gcgggctggc ctggcgctgg
 240
 ctgctgttct gggcctacgc ctttgggtggc tgcgtgaacc actcgctgac gctggccatc
 300
 cagcacatct cgcacaacgc ggccttcggc acggggccgtg cggcacgcaa ccgctggctg
 360
 gccgtgttcg ccaacctgcc cgtgggtgtg ccctacgccg cctccttcaa gaagtaccac
 420
 gtggaccacc accgctacct gggcgggcgac ggactggacg tggacgtgcc cacgcgt
 477

<210> 3484
 <211> 147
 <212> PRT
 <213> Homo sapiens

<400> 3484
 Met Gly Asn Ser Ala Ser Arg Asn Asp Phe Glu Trp Val Tyr Thr Asp
 1 5 10 15
 Gln Pro His Thr Gln Arg Arg Lys Glu Ile Leu Ala Lys Tyr Pro Ala
 20 25 30
 Ile Lys Ala Leu Met Arg Pro Asp Pro Arg Leu Lys Trp Ala Gly Leu
 35 40 45
 Val Leu Val Leu Val Gln Met Leu Ala Cys Trp Leu Val Arg Gly Leu
 50 55 60
 Ala Trp Arg Trp Leu Leu Phe Trp Ala Tyr Ala Phe Gly Gly Cys Val
 65 70 75 80
 Asn His Ser Leu Thr Leu Ala Ile His Asp Ile Ser His Asn Ala Ala
 85 90 95
 Phe Gly Thr Gly Arg Ala Ala Arg Asn Arg Trp Leu Ala Val Phe Ala

100 105 110
Asn Leu Pro Val Gly Val Pro Tyr Ala Ala Ser Phe Lys Lys Tyr His
115 120 125
Val Asp His His Arg Tyr Leu Gly Gly Asp Gly Leu Asp Val Asp Val
130 135 140
Pro Thr Arg
145

<210> 3485
<211> 812
<212> DNA
<213> Homo sapiens

<400> 3485
tattttattta tagtcacaaa aactgttcag gaagaaatgt tatgaaaaga acatttttac
60
tgcattgctta aaacatttaa ttttctatta tacagttaaa catttgcttg aattcagtga
120
gtctaaaaaa tcttattgtt ctcaggtag cagttagttg agcagagtcc attggtgaag
180
caatctagtt attggcaaatt tctaacacat ggtaagggtgt gggggaaagg atttaaaata
240
acagaaaaat gtaagtacaa acatacataa cagcaaaaata aaactcactt taacaaaaat
300
ttatttaaaa tgttaccccc atatttcttc aatgaccaac ttgtttcagt tttatctccc
360
cctcatccgg ttattttatg tctttttggg aggaagggag atgaggggtt ttgtttttta
420
acaaaatcac tggcttttta aaaagtgtta ctgcagtcac ttataagatg catgttatgt
480
ggaagtgata cctgagttgt ttgcatgggc aatggaagag gcagcagctc tgaaaggagt
540
atgagtcag aaaaaaatcc ttcaggaacc ttcaagattg aagaaagaac ttcttttaac
600
attaaagacc aagtattatt ggccagagtc tcttctgaga ttgtgagttt ttcattaact
660
ccttggtgaa aagtcagtaa aatatcaatg atatcattct gaattttctg ttcactacta
720
tccaaacgac ctgagagggg gatagagcac aggagcatat gtaaagtaac aagcgctgaa
780
ggaacacgca tgtccttaaa ctcaaaggat cc
812

<210> 3486
<211> 117
<212> PRT
<213> Homo sapiens

<400> 3486
Met Arg Val Pro Ser Ala Leu Val Thr Leu His Met Leu Leu Cys Ser
1 5 10 15
Ile Pro Leu Ser Gly Arg Leu Asp Ser Asp Glu Gln Lys Ile Gln Asn
20 25 30
Asp Ile Ile Asp Ile Leu Leu Thr Phe Thr Gln Gly Val Asn Glu Lys

35 40 45
Leu Thr Ile Ser Glu Glu Thr Leu Ala Asn Asn Thr Trp Ser Leu Met
50 55 60
Leu Lys Glu Val Leu Ser Ser Ile Leu Lys Val Pro Glu Gly Phe Phe
65 70 75 80
Ser Gly Leu Ile Leu Leu Ser Glu Leu Leu Pro Leu Pro Leu Pro Met
85 90 95
Gln Thr Thr Gln Val Ser Leu Pro His Asn Met His Leu Ile Asn Asp
100 105 110
Cys Ser Asn Thr Phe
115

<210> 3487

<211> 772

<212> DNA

<213> Homo sapiens

<400> 3487

nnattgtatc aaaatcctag atttgaataa cttattatct taaataatca gtaactaaaa
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ccaagcaatc catcacacaa agaggggaaa gggtaatatt ctgagttata aattttttac
120
cctgtctgat aaaaatagaa gcctgaaagt ttaaattttt cctggattta aatttaaaga
180
taaatttggt tttcagtga atatcctcaa tagcaatttt accaaagagg ccttcttctg
240
aaggccacct ctgaaataat tagaggataa atgtcaatgg catgatatta agatattact
300
tggccaggcg tggctgctac gcgtgtaatc ccagcacttt gggaggccga ggcagggtgga
360
tcacgagggtc aagaaatcga gaccagcctg gctaacacag tgaaaccccg tctcattctg
420
agcttcttga caccttttaa tccagtcact gaaattagca tctgcaccta gaaagaaaaa
480
actgactata acatcactca tctgcacaac ctattaatca gcaaatactt actgaatacc
540
tactacatcc caggcagtggt tctaggcact ggggagtcgg cagcgaacaa aacctgtctt
600
aacagacctt atcaccaact ctactatagt tataaacata ccaatagttt aacatttagt
660
tgtaatcat gaaacatttt gattttttta aaattttaac tacagtcaac cttaatttca
720
cagatacaaa taatctgcat tcccccaat cccgctgctc ttagagaagc tt
772

<210> 3488

<211> 59

<212> PRT

<213> Homo sapiens

<400> 3488

Asp Ile Thr Trp Pro Gly Val Val Val Thr Arg Val Ile Pro Ala Leu
1 5 10 15
Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu Ile Glu Thr Ser

20 25 30
Leu Ala Asn Thr Val Lys Pro Arg Leu Ile Leu Ser Phe Leu Thr Pro
35 40 45
Phe Asn Pro Val Thr Glu Ile Ser Ile Cys Thr
50 55

<210> 3489
<211> 288
<212> DNA
<213> Homo sapiens

<400> 3489
tagctaacac tccactatgg gagcccatct cctcccaggg ccaggagagac cagggagacc
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agggagacca ggtctggccc ccaactetaa ggctcatctt agaggcgaga ttcaggccca
120
gcccaggggtg ccccatgagg cctgggtggtt ggaggcagag ggtatccctt gcccaaattc
180
gtgccacatt cacagtcact gggaaagcta cggggatggg ccgggcgagg tggctcacac
240
ctgtaatccc agcactttgg agagccccaa gacgacggat cacgagtc
288

<210> 3490
<211> 90
<212> PRT
<213> Homo sapiens

<400> 3490
Met Gly Ala His Leu Leu Pro Gly Pro Gly Arg Pro Gly Arg Pro Gly
1 5 10 15
Arg Pro Gly Leu Ala Pro Asn Ser Lys Ala His Leu Arg Gly Glu Ile
20 25 30
Gln Ala Gln Pro Arg Val Pro His Glu Ala Trp Trp Leu Glu Ala Glu
35 40 45
Gly Ile Pro Cys Pro Asn Ser Cys His Ile His Ser His Trp Glu Ser
50 55 60
Tyr Gly Asp Gly Pro Gly Ala Val Ala His Thr Cys Asn Pro Ser Thr
65 70 75 80
Leu Glu Ser Pro Lys Thr Thr Asp His Glu
85 90

<210> 3491
<211> 568
<212> DNA
<213> Homo sapiens

<400> 3491
gggaaccgac gtccctctgt ggtgaaattc cacccttca cgccgtgcat cgccgtagcc
60
gacaaggaca gcatctgctt ttgggactgg gagaaagggg agaagctgga ttatttccac
120
aatgggaacc ctcggtacac gagggtcact gccatggagt atctgaatgg ccaggactgc
180

tgcgttctgc tgacggccac agacgatggt gccatcaggg tctggaagaa ttttgctgat
240
ttggaaaaga acccagagat ggtgaccgcg tggcaggggc tctcggacat gctgccaacg
300
acgcgaggag ctgggatggt ggtggactgg gagcaggaga ccggcctcct catgagctca
360
ggagacgtgc ggatcgctccg gatctgggac acagaccgtg agatgaaggt gcaggacatc
420
cctacgggcg cagacagctg tgtgacgagt ctgtcctgtg attcccaccg ctcactcatc
480
gtggctggcc tcggtgacgg ctccatccgc gtctacgaca gaaggatggc actcagcgaa
540
tgccgcgtca tgacgtaccg ggagcaca
568

<210> 3492
<211> 189
<212> PRT
<213> Homo sapiens

<400> 3492
Gly Asn Arg Arg Pro Ser Val Val Lys Phe His Pro Phe Thr Pro Cys
1 5 10 15
Ile Ala Val Ala Asp Lys Asp Ser Ile Cys Phe Trp Asp Trp Glu Lys
20 25 30
Gly Glu Lys Leu Asp Tyr Phe His Asn Gly Asn Pro Arg Tyr Thr Arg
35 40 45
Val Thr Ala Met Glu Tyr Leu Asn Gly Gln Asp Cys Ser Leu Leu Leu
50 55 60
Thr Ala Thr Asp Asp Gly Ala Ile Arg Val Trp Lys Asn Phe Ala Asp
65 70 75 80
Leu Glu Lys Asn Pro Glu Met Val Thr Ala Trp Gln Gly Leu Ser Asp
85 90 95
Met Leu Pro Thr Thr Arg Gly Ala Gly Met Val Val Asp Trp Glu Gln
100 105 110
Glu Thr Gly Leu Leu Met Ser Ser Gly Asp Val Arg Ile Val Arg Ile
115 120 125
Trp Asp Thr Asp Arg Glu Met Lys Val Gln Asp Ile Pro Thr Gly Ala
130 135 140
Asp Ser Cys Val Thr Ser Leu Ser Cys Asp Ser His Arg Ser Leu Ile
145 150 155 160
Val Ala Gly Leu Gly Asp Gly Ser Ile Arg Val Tyr Asp Arg Arg Met
165 170 175
Ala Leu Ser Glu Cys Arg Val Met Thr Tyr Arg Glu His
180 185

<210> 3493
<211> 2244
<212> DNA
<213> Homo sapiens

<400> 3493
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aaggaactgt ttggagatga cagtgaggac gagggagctt cacatcatag tggtagtgat
120
aatcactctg aaagatcaga caatagatca gaagcttctg agcgttctga ccatgaggac
180
aatgaccctt cagatgtaga tcagcacagt ggatcagaag cccctaata tgaatgaagac
240
gaaggtcata gatcggatgg agggagccat cattcagaag cagaagggtc tgaaaaagca
300
cattcagatg atgaaaaatg gggcagagaa gataaaagt accagtcaga tgatgaaaag
360
atacaaaatt ctgatgatga ggagagggca caaggatctg atgaagataa gctgcagaat
420
tctgacgatg atgagaaaat gcagaacaca gatgatgagg agaggcctca gctttccgat
480
gatgagagac aacagctatc tgaggaggaa aaggctaatt ctgatgatga acggccggta
540
gcttctgata atgatgatga gaaacagaat tctgatgatg aagaacaacc acagctgtct
600
gatgaagaga aaatgcaaaa ttctgatgat gaaaggccac agggcccaga tgaagaacac
660
aggcattcag atgatgaaga ggaacaggat cataaatcag aatccgcaag aggcagtgat
720
agtgaagatg aagttttacg aatgaaacgc aagaatgcga ttgcatctga ttcagaagcg
780
gatagtgaac ctgaggtgcc aaaagataat agtggaaacca tggatttatt tggaggtgca
840
gatgatattt cttcaggagg tgatggagaa gacaaaccac ctactccagg acagcctgtt
900
gatgaaaatg gattgcctca ggatcaacag gaagaggagc caattcctga gaccagaata
960
gaagtagaaa taccctaaatg aaacactgat ttaggaaacg acttatattt tgttaaactg
1020
cccaactttc tcagtgtaga gccagacct tttgatcttc agtattatga agatgaattt
1080
gaagatgaag aaatgctgga tgaagaaggc agaaccaggc taaaattaaa ggtagaaaat
1140
actataagat ggaggatacg ccgagatgaa gaaggaaatg aaattaaaga aagcaatgct
1200
cggatagtca agtggtcaga tggagcatg tccctgcatt taggcaatga agtgtttgat
1260
gtgtacaaag cccactgca gggcgaccac aatcatcttt ttataagaca aggtactggt
1320
ctacagggac aagcagtctt taaagcgaaa ctacacctca gacctactc tacggacagt
1380
gccacacata gaaagatgac tctgtcactt gcagataggt gttcaaagac acagaagatt
1440
agaatcttgc caatggctgg tcgtgatcct gaatgccaac gcacagaaat gattaagaaa
1500
gaagaagaac gtttgagggc ttccatacgt agggaaatctc agcagcgccg aatgagagag
1560
aaacagcacc agcgggggct gagcgccagt tacctggaac ctgatcgata cgatgaggag
1620
gagggaaggc aggagtcctc cagcttggct gccattaaaa accgatataa agggggcatt
1680

cgagaggaac gagccagaat ctattcatca gacagtgatg agggatcaga agaagataaa
1740
gctcaaagat tactcaaagc aaagaaactt accagtgatg aggaagggtga accttccgga
1800
aagagaaaag cagaagatga tgataaagca aataaaaagc ataagaagta tgtgatcagc
1860
gatgaagagg aagaagatga tgattgaagt atgaaatag aaaacatttt atatatttta
1920
ttgtacagtt ataaatatgt aaacatgagt tattttgatt gaaatgaatc gatttgcttt
1980
tgtgtaattt taattgtaat aaaacaattt aaaagcaagt ctctatgttt aagaaatcta
2040
cttttccggc caggcgcggt ggctcatgcc tgtaatccca gcacttcggg aggccgaggc
2100
aggtggatca caaggtcgtg gtggcgggtg cctgtagtcg cagctactcg ggaggctgag
2160
gcgggggaat tggttgaacc caggaggcag aggttgagc tagccgagat cgcgccactg
2220
cactccagcc tggcgacaga gcta
2244

<210> 3494
<211> 628
<212> PRT
<213> Homo sapiens

<400> 3494
Xaa Gly Gly Tyr Pro Cys Ser Asp Gln Asp Glu Arg Gly Asp Ser Gly
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Gln Pro Ser Asn Lys Glu Leu Phe Gly Asp Asp Ser Glu Asp Glu Gly
20 25 30
Ala Ser His His Ser Gly Ser Asp Asn His Ser Glu Arg Ser Asp Asn
35 40 45
Arg Ser Glu Ala Ser Glu Arg Ser Asp His Glu Asp Asn Asp Pro Ser
50 55 60
Asp Val Asp Gln His Ser Gly Ser Glu Ala Pro Asn Asp Asp Glu Asp
65 70 75 80
Glu Gly His Arg Ser Asp Gly Gly Ser His His Ser Glu Ala Glu Gly
85 90 95
Ser Glu Lys Ala His Ser Asp Asp Glu Lys Trp Gly Arg Glu Asp Lys
100 105 110
Ser Asp Gln Ser Asp Asp Glu Lys Ile Gln Asn Ser Asp Asp Glu Glu
115 120 125
Arg Ala Gln Gly Ser Asp Glu Asp Lys Leu Gln Asn Ser Asp Asp Asp
130 135 140
Glu Lys Met Gln Asn Thr Asp Asp Glu Glu Arg Pro Gln Leu Ser Asp
145 150 155 160
Asp Glu Arg Gln Gln Leu Ser Glu Glu Glu Lys Ala Asn Ser Asp Asp
165 170 175
Glu Arg Pro Val Ala Ser Asp Asn Asp Asp Glu Lys Gln Asn Ser Asp
180 185 190
Asp Glu Glu Gln Pro Gln Leu Ser Asp Glu Glu Lys Met Gln Asn Ser
195 200 205
Asp Asp Glu Arg Pro Gln Ala Pro Asp Glu Glu His Arg His Ser Asp

210 215 220
Asp Glu Glu Glu Gln Asp His Lys Ser Glu Ser Ala Arg Gly Ser Asp
225 230 235 240
Ser Glu Asp Glu Val Leu Arg Met Lys Arg Lys Asn Ala Ile Ala Ser
245 250 255
Asp Ser Glu Ala Asp Ser Asp Thr Glu Val Pro Lys Asp Asn Ser Gly
260 265 270
Thr Met Asp Leu Phe Gly Gly Ala Asp Asp Ile Ser Ser Gly Ser Asp
275 280 285
Gly Glu Asp Lys Pro Pro Thr Pro Gly Gln Pro Val Asp Glu Asn Gly
290 295 300
Leu Pro Gln Asp Gln Gln Glu Glu Glu Pro Ile Pro Glu Thr Arg Ile
305 310 315 320
Glu Val Glu Ile Pro Lys Val Asn Thr Asp Leu Gly Asn Asp Leu Tyr
325 330 335
Phe Val Lys Leu Pro Asn Phe Leu Ser Val Glu Pro Arg Pro Phe Asp
340 345 350
Pro Gln Tyr Tyr Glu Asp Glu Phe Glu Asp Glu Glu Met Leu Asp Glu
355 360 365
Glu Gly Arg Thr Arg Leu Lys Leu Lys Val Glu Asn Thr Ile Arg Trp
370 375 380
Arg Ile Arg Arg Asp Glu Glu Gly Asn Glu Ile Lys Glu Ser Asn Ala
385 390 395 400
Arg Ile Val Lys Trp Ser Asp Gly Ser Met Ser Leu His Leu Gly Asn
405 410 415
Glu Val Phe Asp Val Tyr Lys Ala Pro Leu Gln Gly Asp His Asn His
420 425 430
Leu Phe Ile Arg Gln Gly Thr Gly Leu Gln Gly Gln Ala Val Phe Lys
435 440 445
Ala Lys Leu Thr Phe Arg Pro His Ser Thr Asp Ser Ala Thr His Arg
450 455 460
Lys Met Thr Leu Ser Leu Ala Asp Arg Cys Ser Lys Thr Gln Lys Ile
465 470 475 480
Arg Ile Leu Pro Met Ala Gly Arg Asp Pro Glu Cys Gln Arg Thr Glu
485 490 495
Met Ile Lys Lys Glu Glu Glu Arg Leu Arg Ala Ser Ile Arg Arg Glu
500 505 510
Ser Gln Gln Arg Arg Met Arg Glu Lys Gln His Gln Arg Gly Leu Ser
515 520 525
Ala Ser Tyr Leu Glu Pro Asp Arg Tyr Asp Glu Glu Glu Gly Glu
530 535 540
Glu Ser Ile Ser Leu Ala Ala Ile Lys Asn Arg Tyr Lys Gly Gly Ile
545 550 555 560
Arg Glu Glu Arg Ala Arg Ile Tyr Ser Ser Asp Ser Asp Glu Gly Ser
565 570 575
Glu Glu Asp Lys Ala Gln Arg Leu Leu Lys Ala Lys Lys Leu Thr Ser
580 585 590
Asp Glu Glu Gly Glu Pro Ser Gly Lys Arg Lys Ala Glu Asp Asp Asp
595 600 605
Lys Ala Asn Lys Lys His Lys Lys Tyr Val Ile Ser Asp Glu Glu Glu
610 615 620
Glu Asp Asp Asp
625

<210> 3495
<211> 1085
<212> DNA
<213> Homo sapiens

<400> 3495
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120
gcgtcccccg aggagatcaa gaaggcctat cgggaagctgg cgctcaagta ccaccggac
180
aagaaccgga atgagggcga gaagtttaa ctcatacccc aggcataatga agtgctttca
240
gatccaaaga aaaggatgt ttatgaccaa ggcggagagc aggcaattaa agaaggaggc
300
tcaggcagcc ccagcttctc ttcacccatg gacatctttg acatgttctt tgggtggtggt
360
ggacggatgg ctagagagag aagaggcaag aatgtgttac accagttatc tgtaactctt
420
gaagatctat ataatggagt cacgaagaaa ttggccctcc agaaaaatgt aatttgtgag
480
aaatgtgaag gtgttggtgg gaagaaggga tcgggtggaga agtgcccgtc gtgcaagggg
540
cgggggatgc agatccacat ccagcagatc gggccgggca tggtagagca gatccagacc
600
gtgtgcatcg agtgcaaggg ccagggtgag cgcatacaacc ccaaggaccg ctgagagagc
660
tgacagcggg ccaaggtgat ccgtgagaag aagattatcg aggtacatgt tgaaaaaggt
720
atgaaagatg ggcaaaagat actatttcat ggagaaggag atcaggagcc tgagctggag
780
cctggtgatg tcataattgt gcttgatcag aaggatcata gtgtctttca gagacgaggc
840
catgacttga tcatgaaaat gaaaattcag ctttctgaag ctctttgtgg cttcaagaag
900
acgataaaaa cattggacaa tcgaattctt gttattacat ccaaagcagg tgaggtgata
960
aagcacgggg acctgagatg cgtgcgcat gaaggaatgc ccatctacaa agcaccctg
1020
gaaaaaggga ttctgatcat acagttttta gtaatcttct ctganaaaca ctggctttct
1080
ctgga
1085

<210> 3496
<211> 337
<212> PRT
<213> Homo sapiens

<400> 3496
Met Val Lys Glu Thr Gln Tyr Tyr Asp Ile Leu Gly Val Lys Pro Ser
1 5 10 15
Ala Ser Pro Glu Glu Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Lys

20 25 30
 Tyr His Pro Asp Lys Asn Pro Asp Glu Gly Glu Lys Phe Lys Leu Ile
 35 40 45
 Ser Gln Ala Tyr Glu Val Leu Ser Asp Pro Lys Lys Arg Asp Val Tyr
 50 55 60
 Asp Gln Gly Gly Glu Gln Ala Ile Lys Glu Gly Gly Ser Gly Ser Pro
 65 70 75 80
 Ser Phe Ser Ser Pro Met Asp Ile Phe Asp Met Phe Phe Gly Gly Gly
 85 90 95
 Gly Arg Met Ala Arg Glu Arg Arg Gly Lys Asn Val Val His Gln Leu
 100 105 110
 Ser Val Thr Leu Glu Asp Leu Tyr Asn Gly Val Thr Lys Lys Leu Ala
 115 120 125
 Leu Gln Lys Asn Val Ile Cys Glu Lys Cys Glu Gly Val Gly Gly Lys
 130 135 140
 Lys Gly Ser Val Glu Lys Cys Pro Leu Cys Lys Gly Arg Gly Met Gln
 145 150 155 160
 Ile His Ile Gln Gln Ile Gly Pro Gly Met Val Gln Gln Ile Gln Thr
 165 170 175
 Val Cys Ile Glu Cys Lys Gly Gln Gly Glu Arg Ile Asn Pro Lys Asp
 180 185 190
 Arg Cys Glu Ser Cys Ser Gly Ala Lys Val Ile Arg Glu Lys Lys Ile
 195 200 205
 Ile Glu Val His Val Glu Lys Gly Met Lys Asp Gly Gln Lys Ile Leu
 210 215 220
 Phe His Gly Glu Gly Asp Gln Glu Pro Glu Leu Glu Pro Gly Asp Val
 225 230 235 240
 Ile Ile Val Leu Asp Gln Lys Asp His Ser Val Phe Gln Arg Arg Gly
 245 250 255
 His Asp Leu Ile Met Lys Met Lys Ile Gln Leu Ser Glu Ala Leu Cys
 260 265 270
 Gly Phe Lys Lys Thr Ile Lys Thr Leu Asp Asn Arg Ile Leu Val Ile
 275 280 285
 Thr Ser Lys Ala Gly Glu Val Ile Lys His Gly Asp Leu Arg Cys Val
 290 295 300
 Arg Asp Glu Gly Met Pro Ile Tyr Lys Ala Pro Leu Glu Lys Gly Ile
 305 310 315 320
 Leu Ile Ile Gln Phe Leu Val Ile Phe Pro Xaa Lys His Trp Leu Ser
 325 330 335
 Leu

<210> 3497

<211> 1638

<212> DNA

<213> Homo sapiens

<400> 3497

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 120
 ttttttagtat atccttctaa aaagttttcc tgagaatttt tagtttggcc tctcaagttt
 180

ccttatttta ccttttctta aattacctcc ctcccttctt agtgaaatga gccttccttc
240
agcatacgca acttatccctt attgtttttt tcatacccaa ttttttgttt tatctctttc
300
agccaactgg gtcctgaagt agctgaaatg cgaaaaaggg agcagtccca aaatgaagga
360
acacctgctg tgtctcaagc tcctggaaac cagaggccca acaacacctg ttgcttttgt
420
tggtgctgtt gttgcagctg ctctgcctc actgtgagga atgaagaaag aggggaaaat
480
gcgggaagac ccacacacac tacaaaaatg gagagtatcc aggtcctaga ggaatgccaa
540
aaccctactg cagaggaagt cttgtcctgg tctcaaaatt ttgacaagat gatgaaggcc
600
ccagcaggaa gaaacctttt cagagagtcc ctccgaacag aatacagtga agagaacctt
660
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720
aaggctagga tgatatatga agattacatt tctatactat caccaaaaga ggtcagtctt
780
gattctcgag ttagagaggt gatcaataga aatctgttgg atcccaatcc tcacatgtat
840 aacttcagat atatacttta atgcacagag attcttttcc aaggtttttg 900
aactctcaaa ttataagtc atttgtgaa agtactgctg gctcttcttc tgaatcttaa
960
tgttcattta aaaacaatca ttttggaggg ctgagatggg aaataaaagt agttaataa
1020
catcagaaac tgagttcctg gagaactaca gtttagcatt cctcaggcta ctgtgaaaac
1080
acaaccgtta tggctcttgt ctccattttt atcaaggttt tccatggtta agtttgaga
1140
aaataccaca caaaacaatg aattgccaaa ttgtttgttt tattcaagac tcattctact
1200
tgcaagcaaa gtgtatttgt agtccatga acagtctcct cgtgtatctc cagagactgc
1260
atgtgcaaag taaaatgctt catttgccac atagttgttg taatatttaa tccagtagca
1320
taacttatat ctgtatttaa ggacttttgt gcaatatggg cttaagaaat aattgccaaa
1380
aaaatcggcc atggtttgca ttttttaaca taatctaaga cagaaaaaaa gcaattttta
1440
ctatgtaaca atggtattca acattctata tactgtgttt agtacactaa ttttgaagcc
1500
aatatttctg tacatgaaaa agagctatct atctctgttt gttggaaaat cctaattggg
1560
attcctctgg ttgttactg ccaaaactgt ggcattttca ttacaggaga gtttactatg
1620
ctaaaagcaa aaaacaaa
1638

<210> 3498
<211> 210
<212> PRT
<213> Homo sapiens

<400> 3498
 Met Arg Lys Arg Gln Gln Ser Gln Asn Glu Gly Thr Pro Ala Val Ser
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 Gln Ala Pro Gly Asn Gln Arg Pro Asn Asn Thr Cys Cys Phe Cys Trp
 20 25 30
 Cys Cys Cys Cys Ser Cys Ser Cys Leu Thr Val Arg Asn Glu Glu Arg
 35 40 45
 Gly Glu Asn Ala Gly Arg Pro Thr His Thr Thr Lys Met Glu Ser Ile
 50 55 60
 Gln Val Leu Glu Glu Cys Gln Asn Pro Thr Ala Glu Glu Val Leu Ser
 65 70 75 80
 Trp Ser Gln Asn Phe Asp Lys Met Met Lys Ala Pro Ala Gly Arg Asn
 85 90 95
 Leu Phe Arg Glu Phe Leu Arg Thr Glu Tyr Ser Glu Glu Asn Leu Leu
 100 105 110
 Phe Trp Leu Ala Cys Glu Asp Leu Lys Lys Glu Gln Asn Lys Lys Val
 115 120 125
 Ile Glu Glu Lys Ala Arg Met Ile Tyr Glu Asp Tyr Ile Ser Ile Leu
 130 135 140
 Ser Pro Lys Glu Val Ser Leu Asp Ser Arg Val Arg Glu Val Ile Asn
 145 150 155 160
 Arg Asn Leu Leu Asp Pro Asn Pro His Met Tyr Glu Asp Ala Gln Leu
 165 170 175
 Gln Ile Tyr Thr Leu Met His Arg Asp Ser Phe Pro Arg Phe Leu Asn
 180 185 190
 Ser Gln Ile Tyr Lys Ser Phe Val Glu Ser Thr Ala Gly Ser Ser Ser
 195 200 205
 Glu Ser
 210

<210> 3499
 <211> 732
 <212> DNA
 <213> Homo sapiens

<400> 3499
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 120
 tgccacgggc ggcgtcccag cctggcacag aggtattgtg attccanaa tggccaagnc
 180
 aacagactcn aacctcagga tngttctatt ttcgcccaga agcaataatt ttttttctt
 240
 tctggaaagc cttttcaaga tagtgatgtt gatgtggggg cacggcggtc gccgggtaca
 300
 tggaggtacc ggggtcacag cagcgcaagc accgggaagc agggagcccc tggctctgac
 360
 tgggcctgta tttttcatgt tgtttctcag ccctctcggc atgggtccgga ggcgacggca
 420
 gctcctcagt cccctccac tcctgctgtt cccctcggac atggggcaca cgactcagga
 480
 ccaggccaga ggcaaaggca aggagcaggc agtacgccag caagagtcct tgtccacggg
 540

agcccatctt cctgccgggc cctccgtccc gccggccgct cctcccgcgc cgtcccctaga
600
gcattctccg cgggccaagc ctctctcccg ccanggtccg gggcgatgca cagactcggc
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720
gggggaggta cg
732

<210> 3500
<211> 168
<212> PRT
<213> Homo sapiens

<400> 3500
Phe Phe Phe Pro Ser Gly Lys Pro Phe Gln Asp Ser Asp Val Asp Val
1 5 10 15
Gly Ala Arg Arg Ser Pro Gly Thr Trp Arg Tyr Arg Gly His Ser Ser
20 25 30
Ala Ser Thr Gly Lys Gln Gly Ala Pro Gly Pro Asp Trp Ala Cys Ile
35 40 45
Phe His Val Val Leu Gln Pro Ser Arg His Gly Pro Glu Ala Thr Ala
50 55 60
Ala Pro Gln Ser Pro Pro Thr Pro Ala Val Pro Pro Gly His Gly Ala
65 70 75 80
His Asp Ser Gly Pro Gly Gln Arg Gln Arg Gln Gly Ala Gly Ser Thr
85 90 95
Pro Ala Arg Val Pro Val His Gly Ser Pro Ser Ser Cys Arg Ala Leu
100 105 110
Arg Pro Ala Gly Arg Ser Ser Arg Ala Ala Pro Arg Ala Ser Pro Ala
115 120 125
Gly Gln Ala Ser Ser Arg Pro Xaa Ser Gly Ala Met His Arg Leu Gly
130 135 140
Glu Gly Asn Arg Ala Gly Glu Lys Val Phe Arg Arg Thr Ala Val Gln
145 150 155 160
Lys Arg Arg Val Gly Gly Thr
165

<210> 3501
<211> 691
<212> DNA
<213> Homo sapiens

<400> 3501
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120
ccccctatag agaagatgga tgcatecttg tccatgcttg ctaattgcga gaagctttca
180
ctgtctacaa actgcattga aaaaattgcc aacctgaatg gcttaaaaaa cttgaggata
240
ttatcttttag gaagaaacaa cataaagaac ttaaattggac tggaggcagt aggggacaca
300

ttagaagaac tgtggatctc ctacaatttt attgagaagt tgaaagggat ccacataatg
360
aagaaattga agattctcta catgtctaataaacctggtaa aagactgggc tgagtttctg
420
aagctggcag aactgccatg cctcgaagac ctggtgtttg taggcaatcc cttggaagag
480
aaacattctg ctgagaataa ctggattgaa gaagcaacca agagagtgcc caaactgaaa
540
aagctggatg gtactccagt aattaaaggg gatgaggaag aagacaacta atgccacgct
600
ttccactgtg tgttaactta tttaaatgtc ataagaacaa tagataaatt ttatataatt
660
gtctatttta aaaaaaaaaa aaaaaaaaaa a
691

<210> 3502
<211> 196
<212> PRT
<213> Homo sapiens

<400> 3502
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Leu Ala Arg Trp Glu Glu Lys Thr Gly Gln Arg Pro Ser Glu Ala Lys
20 25 30
Glu Ile Lys Leu Tyr Ala Gln Ile Pro Pro Ile Glu Lys Met Asp Ala
35 40 45
Ser Leu Ser Met Leu Ala Asn Cys Glu Lys Leu Ser Leu Ser Thr Asn
50 55 60
Cys Ile Glu Lys Ile Ala Asn Leu Asn Gly Leu Lys Asn Leu Arg Ile
65 70 75 80
Leu Ser Leu Gly Arg Asn Asn Ile Lys Asn Leu Asn Gly Leu Glu Ala
85 90 95
Val Gly Asp Thr Leu Glu Glu Leu Trp Ile Ser Tyr Asn Phe Ile Glu
100 105 110
Lys Leu Lys Gly Ile His Ile Met Lys Lys Leu Lys Ile Leu Tyr Met
115 120 125
Ser Asn Asn Leu Val Lys Asp Trp Ala Glu Phe Val Lys Leu Ala Glu
130 135 140
Leu Pro Cys Leu Glu Asp Leu Val Phe Val Gly Asn Pro Leu Glu Glu
145 150 155 160
Lys His Ser Ala Glu Asn Asn Trp Ile Glu Glu Ala Thr Lys Arg Val
165 170 175
Pro Lys Leu Lys Lys Leu Asp Gly Thr Pro Val Ile Lys Gly Asp Glu
180 185 190
Glu Glu Asp Asn
195

<210> 3503
<211> 857
<212> DNA
<213> Homo sapiens

<400> 3503

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 120
 aatgcccaga gattagcgga gaagctccga gcccagaaac gggaacaaga cacaagaag
 180
 gagccggtgt ccacaaacgc tgttcagcgg agagtgaag aaatagtgcg gttcacacgg
 240
 cagctgcagc gagtccaccc caacgtgctt gctaaggcac tgaccgagg aattctccac
 300
 caggacaaga accttgtggt catcaataag ccctacggtc tccctgtgca tgggtggccct
 360
 ggggtccagc tctgcatcac tgatgtacta cctatcctgg caaagatgct tcatggccac
 420
 aaggcagagc ccttgcattt gtgccaccgg ctggacaagg aaaccacagg tgtaatggtg
 480
 ttggcctggg acaaggacat ggcacatcaa gtccaagagt tgtttagaac ccgtcaggtg
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 600
 atccccattg tggagaagga ggggcaaggc cagcagcaac accccagaat gacattgtcc
 660
 ccgagctccc gcattggacg tgggaaaatg gtgaaagtgc ggcgcagccg gaatgcgcaa
 720
 gttgctgtaa ctcatgacca ggtgctcagc agcactctct cctccgccct cgtggagctc
 780
 cagcccatca ctggaataaa acatcagctt cgagttcact tgtcttttgg attggattgt
 840
 ccaatccttg gtgatca
 857

<210> 3504

<211> 285

<212> PRT

<213> Homo sapiens

<400> 3504

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Gln	Gly	Cys	Gly	Ser	Leu	Phe	Thr	Leu	Val	Ser	Lys	Pro	Phe	Cys	Ala
		20						25					30		
Ala	Ala	Ala	Ala	Ser	Thr	Ala	Ile	Asn	Ala	Gln	Arg	Leu	Ala	Glu	Lys
		35					40					45			
Leu	Arg	Ala	Gln	Lys	Arg	Glu	Gln	Asp	Thr	Lys	Lys	Glu	Pro	Val	Ser
	50					55				60					
Thr	Asn	Ala	Val	Gln	Arg	Arg	Val	Gln	Glu	Ile	Val	Arg	Phe	Thr	Arg
65					70				75					80	
Gln	Leu	Gln	Arg	Val	His	Pro	Asn	Val	Leu	Ala	Lys	Ala	Leu	Thr	Arg
			85				90						95		
Gly	Ile	Leu	His	Gln	Asp	Lys	Asn	Leu	Val	Val	Ile	Asn	Lys	Pro	Tyr
		100					105						110		
Gly	Leu	Pro	Val	His	Gly	Gly	Pro	Gly	Val	Gln	Leu	Cys	Ile	Thr	Asp
		115					120					125			
Val	Leu	Pro	Ile	Leu	Ala	Lys	Met	Leu	His	Gly	His	Lys	Ala	Glu	Pro

130 135 140
 Leu His Leu Cys His Arg Leu Asp Lys Glu Thr Thr Gly Val Met Val
 145 150 155 160
 Leu Ala Trp Asp Lys Asp Met Ala His Gln Val Gln Glu Leu Phe Arg
 165 170 175
 Thr Arg Gln Val Val Lys Lys Tyr Trp Ala Ile Thr Val His Val Pro
 180 185 190
 Met Pro Ser Ala Gly Val Val Asp Ile Pro Ile Val Glu Lys Glu Gly
 195 200 205
 Gln Gly Gln Gln Gln His Pro Arg Met Thr Leu Ser Pro Ser Ser Arg
 210 215 220
 Met Asp Asp Gly Lys Met Val Lys Val Arg Arg Ser Arg Asn Ala Gln
 225 230 235 240
 Val Ala Val Thr Gln Tyr Gln Val Leu Ser Ser Thr Leu Ser Ser Ala
 245 250 255
 Leu Val Glu Leu Gln Pro Ile Thr Gly Ile Lys His Gln Leu Arg Val
 260 265 270
 His Leu Ser Phe Gly Leu Asp Cys Pro Ile Leu Gly Asp
 275 280 285

<210> 3505
 <211> 1612
 <212> DNA
 <213> Homo sapiens

<400> 3505
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 120
 cttgtcgcat ccctgggctc tgcggagaag gaacccgagc agccccggc cctgtggagg
 180
 aagggtgtgg acttccctgct gaaggccatc atgcgcacca tgtggttcgc cggcggcttc
 240
 caccgggtgg ccgtgaaggg gcggcaggcg ctgcccaccg aggcggccat cctcacgctc
 300
 gcgcctcact cgctcactt cgacgccatc cctgtgacca tgacgatgtc ctccatcgtg
 360
 atgaagacag agagcagaga catcccgatc tggggaactc tgatccagta tatacggcct
 420
 gtgttcgtgt cccggtcaga ccaggattct cgcaggaaaa cagtagaaga aatcaagaga
 480
 cgggcgcagt ccaacggaaa gtggccacag ataattgattt ttccagaagg aacttgatca
 540
 aacaggacct gcctaattac cttcaaacct ggtgcattca tccctggagc gcccgccac
 600
 cctgggggtt tacgatatcc aaataaactg gacaccatca catggacgtg gcaaggacct
 660
 ggagcgctgg aaatcctgtg gctcacgctg tgtcagtttc acaaccaagt ggaaatcgag
 720
 ttccttcttg tgtacagccc ttctgaggag gagaagagga accccgcgct gtatgccagc
 780
 aacgtgcggc gactcatggc cgaggccttg ggtgtctccg tgactgacta cacgttcgag
 840

gactgccagc tggccctggc ggaaggacag ctccgtctcc ccgctgacac ttgcctttta
900
gaatttgcca ggctcgtgcg gggcctcggg ctaaaaccag aaaagcttga aaaagatctg
960
gacagatact cagaaagagc caggatgaag ggaggagaga agataggtat tgcggagttt
1020
gccgcctccc tggaagtccc cgtttctgac ttgctggaag acatgttttc actgttcgac
1080
gagagcggca gcggcgaggt ggacctgcga gagtgtgtgg ttgccctgtc tgcgtctgc
1140
tggccggccc ggacctgga caccatccag ctggctttca agatgtacgg agcgcaagag
1200
gacggcagcg tcggcgaagg tgacctgtcc tgcacctca agacggccct gggggtggca
1260
gagctcactg tgaccgacct attccgagcc attgaccaag aggagaaggg gaagatcaca
1320
ttcgtgact tccacaggtt tgcagaaatg taccctgcct tcgcagagga atacctgtac
1380
ccggatcaga cacatttcga aagctgtgca gagacctcac ctgcgccaat cccaaacggc
1440
ttctgtgccg atttcagccc ggaaaactca gacgttgggc ggaagcctgt tcgcaagaag
1500
ctggattagg acccagggtt gcggagagac gcggccctc ccgctggac atcaccgcca
1560
tgagcctctt tgcgagtac ctctgggctc cgctcctcac tcctgctgta ca
1612

<210> 3506

<211> 502

<212> PRT

<213> Homo sapiens

<400> 3506

Val His Glu Leu His Leu Ser Ala Leu Gln Lys Ala Gln Val Ala Leu
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Met Thr Leu Thr Leu Phe Pro Val Arg Leu Leu Val Ala Ala Met
20 25 30
Met Leu Leu Ala Trp Pro Leu Ala Leu Val Ala Ser Leu Gly Ser Ala
35 40 45
Glu Lys Glu Pro Glu Gln Pro Pro Ala Leu Trp Arg Lys Val Val Asp
50 55 60
Phe Leu Leu Lys Ala Ile Met Arg Thr Met Trp Phe Ala Gly Gly Phe
65 70 75 80
His Arg Val Ala Val Lys Gly Arg Gln Ala Leu Pro Thr Glu Ala Ala
85 90 95
Ile Leu Thr Leu Ala Pro His Ser Ser Tyr Phe Asp Ala Ile Pro Val
100 105 110
Thr Met Thr Met Ser Ser Ile Val Met Lys Thr Glu Ser Arg Asp Ile
115 120 125
Pro Ile Trp Gly Thr Leu Ile Gln Tyr Ile Arg Pro Val Phe Val Ser
130 135 140
Arg Ser Asp Gln Asp Ser Arg Arg Lys Thr Val Glu Glu Ile Lys Arg
145 150 155 160
Arg Ala Gln Ser Asn Gly Lys Trp Pro Gln Ile Met Ile Phe Pro Glu

165 170 175
Gly Thr Cys Thr Asn Arg Thr Cys Leu Ile Thr Phe Lys Pro Gly Ala
180 185 190
Phe Ile Pro Gly Ala Pro Val His Pro Gly Val Leu Arg Tyr Pro Asn
195 200 205
Lys Leu Asp Thr Ile Thr Trp Thr Trp Gln Gly Pro Gly Ala Leu Glu
210 215 220
Ile Leu Trp Leu Thr Leu Cys Gln Phe His Asn Gln Val Glu Ile Glu
225 230 235 240
Phe Leu Pro Val Tyr Ser Pro Ser Glu Glu Glu Lys Arg Asn Pro Ala
245 250 255
Leu Tyr Ala Ser Asn Val Arg Arg Val Met Ala Glu Ala Leu Gly Val
260 265 270
Ser Val Thr Asp Tyr Thr Phe Glu Asp Cys Gln Leu Ala Leu Ala Glu
275 280 285
Gly Gln Leu Arg Leu Pro Ala Asp Thr Cys Leu Leu Glu Phe Ala Arg
290 295 300
Leu Val Arg Gly Leu Gly Leu Lys Pro Glu Lys Leu Glu Lys Asp Leu
305 310 315 320
Asp Arg Tyr Ser Glu Arg Ala Arg Met Lys Gly Gly Glu Lys Ile Gly
325 330 335
Ile Ala Glu Phe Ala Ala Ser Leu Glu Val Pro Val Ser Asp Leu Leu
340 345 350
Glu Asp Met Phe Ser Leu Phe Asp Glu Ser Gly Ser Gly Glu Val Asp
355 360 365
Leu Arg Glu Cys Val Val Ala Leu Ser Val Val Cys Trp Pro Ala Arg
370 375 380
Thr Leu Asp Thr Ile Gln Leu Ala Phe Lys Met Tyr Gly Ala Gln Glu
385 390 395 400
Asp Gly Ser Val Gly Glu Gly Asp Leu Ser Cys Ile Leu Lys Thr Ala
405 410 415
Leu Gly Val Ala Glu Leu Thr Val Thr Asp Leu Phe Arg Ala Ile Asp
420 425 430
Gln Glu Glu Lys Gly Lys Ile Thr Phe Ala Asp Phe His Arg Phe Ala
435 440 445
Glu Met Tyr Pro Ala Phe Ala Glu Glu Tyr Leu Tyr Pro Asp Gln Thr
450 455 460
His Phe Glu Ser Cys Ala Glu Thr Ser Pro Ala Pro Ile Pro Asn Gly
465 470 475 480
Phe Cys Ala Asp Phe Ser Pro Glu Asn Ser Asp Ala Gly Arg Lys Pro
485 490 495
Val Arg Lys Lys Leu Asp
500

<210> 3507
<211> 885
<212> DNA
<213> Homo sapiens

<400> 3507
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ccaggagagg cttccctactc actcttgggg gctgtgtcca cacagggact ctgcagcagc
120

cgagcccgc ccccgccatc cgtgctcaag tcccactcgc ttagtcatt gttgatgctg
180
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240
cacatgcctc agggagctga gcaacaccca cctgtttggg gctgttagct taggactctt
300
ctcaacctgc tctttctccc tgatgggctg tgccagaggc ggttgctatg tgaggtggcc
360
atcgctgtct acacctttgg cacctgcatt gccttcctaa tcatcattgg cgaccagcag
420
gacaagatta tagctgtgat ggcgaaagag ccggaggggg ccagcggccc ttggtacaca
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600
acagccatcg ttatcatcaa gtacatctgg ccagataaag agatgacccc agggaacatc
660
ctgaccaggc cggcttctg gatggtgtg ttcaatgcca tgcccacat ctgcttcgga
720
tttcagtgcc acgtcagcag tgtgccgctc ttcaacagca tgcagcagcc tgaagtgaag
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acctgggggtg gagtgggtgac agctgccatg gtcatagcc tcgctgtcta catggggaca
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<210> 3508

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3508

Leu	Arg	Thr	Leu	Leu	Asn	Leu	Leu	Phe	Leu	Pro	Asp	Gly	Leu	Cys	Gln
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Arg	Arg	Leu	Leu	Cys	Glu	Val	Ala	Ile	Ala	Val	Tyr	Thr	Phe	Gly	Thr
		20					25					30			
Cys	Ile	Ala	Phe	Leu	Ile	Ile	Ile	Gly	Asp	Gln	Gln	Asp	Lys	Ile	Ile
		35				40					45				
Ala	Val	Met	Ala	Lys	Glu	Pro	Glu	Gly	Ala	Ser	Gly	Pro	Trp	Tyr	Thr
	50				55						60				
Asp	Arg	Lys	Phe	Thr	Ile	Ser	Leu	Thr	Ala	Phe	Leu	Phe	Ile	Leu	Pro
65				70				75						80	
Leu	Ser	Ile	Pro	Arg	Glu	Ile	Gly	Phe	Gln	Lys	Tyr	Ala	Ser	Phe	Leu
		85					90						95		
Ser	Val	Val	Gly	Thr	Trp	Tyr	Val	Thr	Ala	Ile	Val	Ile	Ile	Lys	Tyr
		100					105					110			
Ile	Trp	Pro	Asp	Lys	Glu	Met	Thr	Pro	Gly	Asn	Ile	Leu	Thr	Arg	Pro
	115				120							125			
Ala	Ser	Trp	Met	Ala	Val	Phe	Asn	Ala	Met	Pro	Thr	Ile	Cys	Phe	Gly
	130				135						140				
Phe	Gln	Cys	His	Val	Ser	Ser	Val	Pro	Val	Phe	Asn	Ser	Met	Gln	Gln
145			150					155					160		
Pro	Glu	Val	Lys	Thr	Trp	Gly	Gly	Val	Val	Thr	Ala	Ala	Met	Val	Ile

165 170 175
Ala Leu Ala Val Tyr Met Gly Thr Gly Ile Cys Gly Phe Leu Thr Phe
180 185 190
Gly Ala Ala Val Asp Pro Asp
195

<210> 3509
<211> 331
<212> DNA
<213> Homo sapiens

<400> 3509
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gccctgggtgc atgtcaaggc cgagtacttc cgctccctgg cccactacca cgtagccatg
120
gccctctgcg acggctcccc gaccgagggg gagctcccca cgcacgagca ggtcttcttg
180
agccccccac ctctttaag cccccgaggg cctgggttgc cccagaagtt ggaggagcgc
240
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300
tggcaggggtg tccccacca cctcacgcg t
331

<210> 3510
<211> 110
<212> PRT
<213> Homo sapiens

<400> 3510
Leu Val His Arg Thr Met Ala Gln Pro Pro Val His Asp Tyr Val Pro
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Val Ser Trp Thr Ala Leu Val His Val Lys Ala Glu Tyr Phe Arg Ser
20 25 30
Leu Ala His Tyr His Val Ala Met Ala Leu Cys Asp Gly Ser Pro Thr
35 40 45
Glu Gly Glu Leu Pro Thr His Glu Gln Val Phe Leu Ser Pro Pro Pro
50 55 60
Pro Leu Ser Pro Arg Gly Pro Gly Leu Pro Gln Lys Leu Glu Glu Arg
65 70 75 80
Arg Gln Leu Gly Lys Ala Pro Met Gly Gly Val Pro Trp Gly Ser Asp
85 90 95
Gly His Gln Arg Trp Gln Gly Val Pro His His Pro His Ala
100 105 110

<210> 3511
<211> 3319
<212> DNA
<213> Homo sapiens

<400> 3511
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120
gtagtgacc gtaattcatc agaagaagga actgcagaga aatccaagaa actgaggact
180
acaaatgagc attctcagac ttgtgattgg ggtaatctcc ttcaggacat tattctccaa
240
gtatttaaatt atttgectct tcttgaccgg gctcatgctt cacaagtttg cgcgaactgg
300
aaccagggtat ttcacatgcc tgacttgtgg agatgttttg aatttgaact gaatcagcca
360
gctacatctt atttgaaagc taccatcca gagctgatca aacagattat taaaagacat
420
tcaaaccatc tacaatatgt cagcttcaag gtggacagca gcaaggaatc agctgaagca
480
gcttgatgata tactatcgca acttgtgaat tgctctttaa aaacacttgg acttatttca
540
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600
gtgttcgtaa actccaaatc cctgtcttcg ctttaagatag atgatactcc agtagatgat
660
ccatctctca aagtactagt ggccaacaat agtgatacac tcaagctgtt gaaaatgagc
720
agctgtcttc atgtctctcc agcaggatc ctttgtgtgg ctgatcagtg tcacggctta
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840
gaaaaacatg ttcgattaga acatttgcgc attgatgtag tcagtgaaga tcctggacag
900
acacacttcc atactattca gaagagtagc tgggatgctt tcatcagaca ttcacccaaa
960
gtgaacttag tgatgtattt ttttttatat gaagaagaat ttgacccctt ctttcgctat
1020
gaaatacctg ccacccatct gtactttggg agatcagtaa gcaaagatgt gcttggccgt
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1140
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1200
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1260
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1320
cagattcact gggaagtgtc caagcatctt ggtaggggtg ggtttcccga catgatgccc
1380
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1440
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1500
cttcagtcag tatatgtaaa gattgtttat cggaagaccc atgaatgagt ttcggtcaga
1560
aaattccact tgtttcccta gtgtaatagc agtcatatct ccgaattttt tttaatgtgg
1620
ttcggatgtg aaataaccag ttatacgtat taaacagttt acagtctaaa ggaaacaaaa
1680

cctatatgtt ataatatcca agaagtacta atagggtttc tgaaatgta tattctctat
1740
gcattaaaaa aaaaatgtaa acttgacatt ttagggctct cagttacaca tacacctgtt
1800
ataagggtgt taatatagct caggaaagtg agcattttgt gagaaaaatg aatatatcat
1860
atctaattgga aaagattgga tgaatgttct caaatgttac aaagctgttt aaagaaaaag
1920
gtatatataa gtaatcagaa cacttagaag actgatagat gtcacacagt ggtattatag
1980
aaggataata cagagccaag atcaaattaa aagacaataa atggaacaga agggaggcag
2040
tgtttagctt tgtataaact tttagggttg ctctgtaac tgctaaacca tatacattct
2100
tttgtgatat gttattatgt atgtggcact tgaggcactg tatgtaaagt aaggaatgct
2160
ttactagtct tccttggttt tatctttgtt taaactagct ttaaagtatt aaacaataat
2220
tgaaatgaaa agcttaccta ttttaaaaag ccaaatttaa ataatatag aactttaaaa
2280
tgtttatcag ttgtttccat gaaagaatat tagtttccag taaattttag tgatggctca
2340
ctcacttttc tattttggaa ttacatagtt atgtaagtaa aattttttaa aatcataaag
2400
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Glu Gly Thr Ala Glu Lys Ser Lys Lys Leu Arg Thr Thr Asn Glu His
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Ser Gln Thr Cys Asp Trp Gly Asn Leu Leu Gln Asp Ile Ile Leu Gln
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Val Phe Lys Tyr Leu Pro Leu Leu Asp Arg Ala His Ala Ser Gln Val
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Cys Arg Asn Trp Asn Gln Val Phe His Met Pro Asp Leu Trp Arg Cys
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Gln Tyr Val Ser Phe Lys Val Asp Ser Ser Lys Glu Ser Ala Glu Ala
145 150 155 160
Ala Cys Asp Ile Leu Ser Gln Leu Val Asn Cys Ser Leu Lys Thr Leu
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Gly Leu Ile Ser Thr Ala Arg Pro Ser Phe Met Asp Leu Pro Lys Ser
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Ser Cys Pro His Val Ser Pro Ala Gly Ile Leu Cys Val Ala Asp Gln
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Cys His Gly Leu Arg Glu Leu Ala Leu Asn Tyr His Leu Leu Ser Asp
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Gly Glu Cys Glu Val Ser Cys Ser Ala Phe Val Glu Phe Val Lys Met
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2676

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<211> 547

<212> PRT

<213> Homo sapiens

<400> 3516

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Gly	Asn	Trp	Ile	Thr	Leu	Lys	Met	Arg	Lys	Leu	Ile	Lys	Ser	Lys	Lys
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His	Ala	Ser	Arg	Pro	Ala	Ser	Leu	Asp	Ser	Gly	Arg	Thr	Ser	Thr	Ser
		260					265						270		
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435 440 445
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Ile His Asp Phe Leu Thr Lys Asp Ser Arg Leu Pro Ile Ser Val Asp
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<212> DNA
<213> Homo sapiens

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<212> PRT
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35 40 45
Gln Arg Met Pro Asp Arg Pro Thr Ser Arg Pro Leu Leu Val Arg Ala
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<211> 303

<212> PRT

<213> Homo sapiens

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 35 40 45
 Arg Glu Glu Leu Ala Arg Ile Gly Leu Val Pro Pro Glu Glu Phe
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 Ala Asn Gly Val Leu Leu Ala Thr Pro Leu Ala Gly Pro Gly Pro Ser
 65 70 75 80
 Pro Thr Thr Val Pro Ser Pro Ala Ser Gly Lys Pro Ser Ser Glu Pro
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 Pro Pro Ala Pro Glu Ser Ala Ala Asp Ser Gly Val Glu Glu Ala Asp
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 Thr Arg Ser Ser Ser Asp Pro His Leu Glu Thr Thr Ser Thr Ile Ser
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 Thr Val Ser Ser Met Ser Thr Leu Ser Ser Glu Ser Gly Glu Leu Thr
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 Asp Thr His Thr Ser Phe Ala Asp Gly His Thr Phe Leu Leu Glu Lys
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 Pro Pro Val Pro Pro Lys Pro Lys Leu Lys Ser Pro Leu Gly Lys Gly
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 Pro Val Thr Phe Arg Asp Pro Leu Leu Lys Gln Ser Ser Asp Ser Glu
 180 185 190
 Leu Met Ala Gln Gln His His Ala Ala Ser Ala Gly Leu Ala Ser Ala
 195 200 205
 Ala Gly Pro Ala Arg Pro Arg Tyr Leu Phe Gln Arg Arg Ser Lys Leu
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 Trp Gly Asp Pro Val Glu Ser Arg Gly Leu Pro Gly Pro Glu Asp Asp
 225 230 235 240
 Lys Pro Thr Val Ile Ser Glu Leu Ser Ser Arg Leu Gln Gln Leu Asn
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 Lys Asp Thr Arg Ser Leu Gly Glu Glu Pro Val Gly Gly Leu Gly Ser
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<210> 3521
 <211> 638
 <212> DNA
 <213> Homo sapiens

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<210> 3522

<211> 181

<212> PRT

<213> Homo sapiens

<400> 3522

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Cys	Arg	His	Thr	Arg	Ser	Ala	Pro	Thr	Pro	Leu	Leu	Pro	Pro	Cys	Pro
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<210> 3523

<211> 2614

<212> DNA

<213> Homo sapiens

<400> 3523

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<210> 3524
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<212> PRT
<213> Homo sapiens

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35 40 45
Ser Arg Arg His Pro Gly Gly Ser Arg Val Ile Ser His Tyr Ala Gly
50 55 60
Gln Asp Ala Thr Asp Pro Phe Val Ala Phe His Ile Asn Lys Gly Leu
65 70 75 80
Val Lys Lys Tyr Met Asn Ser Leu Leu Ile Gly Glu Leu Ser Pro Glu
85 90 95
Gln Pro Ser Phe Glu Pro Thr Lys Asn Lys Glu Leu Thr Asp Glu Phe
100 105 110
Arg Glu Leu Arg Ala Thr Val Glu Arg Met Gly Leu Met Lys Ala Asn

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His Val Phe Phe Leu Leu Tyr Leu Leu His Ile Leu Leu Leu Asp Gly
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Ala Ala Trp Leu Thr Leu Trp Val Phe Gly Thr Ser Phe Leu Pro Phe
145 150 155 160
Leu Leu Cys Ala Val Leu Leu Ser Ala Val Gln Ala Gln Ala Gly Trp
165 170 175
Leu Gln His Asp Phe Gly His Leu Ser Val Phe Ser Thr Ser Lys Trp
180 185 190
Asn His Leu Leu His His Phe Val Ile Gly His Leu Lys Gly Ala Pro
195 200 205
Ala Ser Trp Trp Asn His Met His Phe Gln His His Ala Lys Pro Asn
210 215 220
Cys Phe Arg Lys Asp Pro Asp Ile Asn Met His Pro Phe Phe Phe Ala
225 230 235 240
Leu Gly Lys Ile Leu Ser Val Glu Leu Gly Lys Gln Lys Lys Lys Tyr
245 250 255
Met Pro Tyr Asn His Gln His Lys Tyr Phe Phe Leu Ile Gly Pro Pro
260 265 270
Ala Leu Leu Pro Leu Tyr Phe Gln Trp Tyr Ile Phe Tyr Phe Val Ile
275 280 285
Gln Arg Lys Lys Trp Val Asp Leu Val Trp Met Ile Thr Phe Tyr Val
290 295 300
Arg Phe Phe Leu Thr Tyr Val Pro Leu Leu Gly Leu Lys Ala Phe Leu
305 310 315 320
Gly Leu Phe Phe Ile Val Arg Phe Leu Glu Ser Asn Trp Phe Val Trp
325 330 335
Val Thr Gln Met Asn His Ile Pro Met His Ile Asp His Asp Arg Asn
340 345 350
Met Asp Trp Val Ser Thr Gln Leu Gln Ala Thr Cys Asn Val His Lys
355 360 365
Ser Ala Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
370 375 380
His His Leu Phe Pro Thr Met Pro Arg His Asn Tyr His Lys Val Ala
385 390 395 400
Pro Leu Val Gln Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Ser
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Lys Pro Leu Leu Ser Ala Phe Ala Asp Ile Ile His Ser Leu Lys Glu
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Ser Gly Gln Leu Trp Leu Asp Ala Tyr Leu His Gln
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<211> 1116

<212> DNA

<213> Homo sapiens

<400> 3525

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<210> 3526

<211> 304

<212> PRT

<213> Homo sapiens

<400> 3526

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Arg	Lys	Gly	Ile	Cys	Glu	Tyr	His	Leu	Lys	Asn	Tyr	Ala	Ala	Ala	Leu
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Val	Val	Met	Glu	Pro	Ala	Leu	Glu	Gly	Thr	Gly	Lys	Glu	Gly	Lys	Lys
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Ala	Ser	Ser	Arg	Lys	Arg	Thr	Leu	Ala	Glu	Pro	Pro	Ala	Lys	Gly	Leu
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Leu	Gln	Pro	Val	Lys	Leu	Ser	Arg	Ala	Glu	Leu	Tyr	Lys	Glu	Pro	Thr

115 120 125
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Ser Leu Leu Arg Leu Gln Val Glu Glu Leu Leu Lys Glu Val Arg Leu
145 150 155 160
Ser Glu Lys Lys Lys Asp Arg Ile Asp Ala Phe Leu Arg Glu Val Asn
165 170 175
Gln Arg Val Val Arg Val Pro Ser Val Pro Glu Thr Glu Leu Thr Asp
180 185 190
Gln Ala Trp Leu Pro Ala Gly Val Arg Val Pro Leu His Gln Val Pro
195 200 205
Tyr Ala Val Lys Gly Cys Phe Arg Phe Leu Pro Pro Ala Gln Val Thr
210 215 220
Val Val Gly Ser Tyr Leu Leu Gly Thr Cys Ile Arg Pro Asp Ile Asn
225 230 235 240
Val Asp Val Ala Leu Thr Met Pro Arg Glu Ile Leu Gln Asp Lys Asp
245 250 255
Gly Leu Asn Gln Arg Tyr Phe Arg Lys Arg Ala Leu Tyr Leu Ala His
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<210> 3527

<211> 2838

<212> DNA

<213> Homo sapiens

<400> 3527

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2340

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2838

<210> 3528

<211> 281

<212> PRT

<213> Homo sapiens

<400> 3528

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			20					25					30		
Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Ile	Gln	Leu	Gln	Gln	Asp	
			35					40					45		
Asp	Leu	Gly	Ala	Ala	Phe	Gln	Thr	Trp	Met	Asp	Thr	Ser	Gly	Ala	Leu
			50					55					60		
Arg	Pro	Glu	Ser	Tyr	Ser	Tyr	Pro	Asp	Arg	Leu	Val	Leu	Asp	Gln	Gly
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Gly	Glu	Ile	Phe	Lys	Thr	Leu	His	Tyr	Leu	Ser	Asn	Leu	Ile	Gln	Ser
			85					90					95		
Ile	Lys	Thr	Pro	Leu	Gly	Thr	Lys	Glu	Asn	Pro	Ala	Arg	Val	Cys	Arg
			100					105					110		
Asp	Leu	Met	Asp	Cys	Glu	Gln	Lys	Met	Val	Asp	Gly	Thr	Tyr	Trp	Val
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			130					135					140		
Phe	Thr	His	Gly	Gly	Gln	Thr	Cys	Leu	Lys	Pro	Ile	Thr	Ala	Ser	Lys
			145					150					155		160
Val	Glu	Phe	Ala	Ile	Ser	Arg	Val	Gln	Met	Asn	Phe	Leu	His	Leu	Leu
			165					170					175		
Ser	Ser	Glu	Val	Thr	Gln	His	Ile	Thr	Ile	His	Cys	Leu	Asn	Met	Thr
			180					185					190		
Val	Trp	Gln	Glu	Gly	Thr	Gly	Gln	Thr	Pro	Ala	Lys	Gln	Ala	Val	Arg
			195					200					205		
Phe	Arg	Ala	Trp	Asn	Gly	Gln	Ile	Phe	Glu	Ala	Gly	Gly	Gln	Phe	Arg
			210					215					220		
Pro	Glu	Val	Ser	Met	Asp	Gly	Cys	Lys	Val	Gln	Asp	Gly	Arg	Trp	His

225 230 235 240
Gln Thr Leu Phe Thr Phe Arg Thr Gln Asp Pro Gln Gln Leu Pro Ile
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Ile Ser Val Asp Asn Leu Pro Pro Ala Ser Ser Gly Lys Gln Tyr Arg
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<210> 3529
<211> 3026
<212> DNA
<213> Homo sapiens

<400> 3529
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240
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420
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2820

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3026

<210> 3530
<211> 206
<212> PRT
<213> Homo sapiens

<400> 3530
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Thr Thr Ala Trp Arg Pro Ala Thr Leu Pro Pro Arg Ser Pro Ser His
20 25 30
Cys Xaa Ser Pro Val Ala Gly Val Ala His Arg Phe His Ser Thr Cys
35 40 45
Gly Lys Asn Val Thr Leu Glu Glu Asp Gly Thr Arg Ala Val Arg Ala
50 55 60
Ala Gly Tyr Ala His Gly Leu Val Phe Ser Thr Lys Glu Leu Arg Ala
65 70 75 80
Glu Glu Val Phe Glu Val Lys Val Glu Glu Leu Asp Glu Lys Trp Ala
85 90 95
Gly Ser Leu Arg Leu Gly Leu Thr Thr Leu Ala Pro Gly Glu Met Gly
100 105 110
Pro Gly Ala Gly Gly Gly Gly Pro Gly Leu Pro Pro Ser Leu Pro Glu
115 120 125
Leu Arg Thr Lys Thr Thr Trp Met Val Ser Ser Cys Glu Val Arg Arg
130 135 140
Asp Gly Gln Leu Gln Arg Met Asn Tyr Gly Arg Asn Leu Glu Arg Leu
145 150 155 160
Gly Val Lys Trp Leu Ala Pro Gly Thr Gly Glu Gly Leu Gly Val Glu
165 170 175
Val Ala Gly Arg Gly Gly Leu Asn Ile Val Arg Pro Cys Pro Thr Ser
180 185 190
Val Leu Gly Gly Glu Pro Cys Gly Cys Ser Ser Gly Gly Arg
195 200 205

<210> 3531
<211> 879
<212> DNA
<213> Homo sapiens

<400> 3531
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180

gatggaacga gtgagaatga atctggattt tgggattcct tcaaattggg ctttacagga
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 cagaagactg aggaagtga gcaagataaa gatgacataa ttaatatatt ctcctgtgca
 300
 tctggtcac tctacgaaag atttcttcgc ataattgatgc tatccgtgct gaagaatacc
 360
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 420
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 480
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 720
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 879

<210> 3532

<211> 254

<212> PRT

<213> Homo sapiens

<400> 3532

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 20 25 30
 Ile Val Leu Asn Asn Phe Lys Ser Lys Ile Ile Lys Val Lys Val Gln
 35 40 45
 Lys Lys Ala Asp Met Val Asn Glu Asp Leu Leu Ser Asp Gly Thr Ser
 50 55 60
 Glu Asn Glu Ser Gly Phe Trp Asp Ser Phe Lys Trp Gly Phe Thr Gly
 65 70 75 80
 Gln Lys Thr Glu Glu Val Lys Gln Asp Lys Asp Asp Ile Ile Asn Ile
 85 90 95
 Phe Ser Val Ala Ser Gly His Leu Tyr Glu Arg Phe Leu Arg Ile Met
 100 105 110
 Met Leu Ser Val Leu Lys Asn Thr Lys Thr Pro Val Lys Phe Trp Phe
 115 120 125
 Leu Lys Asn Tyr Leu Ser Pro Thr Phe Lys Glu Phe Ile Pro Tyr Met
 130 135 140
 Ala Asn Glu Tyr Asn Phe Gln Tyr Glu Leu Val Gln Tyr Lys Trp Pro
 145 150 155 160
 Arg Trp Leu His Gln Gln Thr Glu Lys Gln Arg Ile Ile Trp Gly Tyr
 165 170 175
 Lys Ile Leu Phe Leu Asp Val Leu Phe Pro Leu Val Val Asp Lys Phe

			180				185				190				
Leu	Phe	Val	Asp	Ala	Asp	Gln	Ile	Val	Arg	Thr	Asp	Leu	Lys	Glu	Leu
		195					200				205				
Arg	Asp	Phe	Asn	Leu	Asp	Gly	Ala	Pro	Tyr	Gly	Tyr	Thr	Pro	Phe	Cys
	210				215					220					
Asp	Ser	Arg	Arg	Glu	Met	Asp	Gly	Tyr	Arg	Phe	Trp	Lys	Ser	Gly	Tyr
225				230					235					240	
Trp	Ala	Ser	His	Leu	Ala	Gly	Arg	Lys	Tyr	His	Ile	Arg	Tyr		
			245				250								

<210> 3533
 <211> 1151
 <212> DNA
 <213> Homo sapiens

<400> 3533
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 180
 cagtggagc accccaactc catggataac ttgcccagtg ccgcttcccc cctggagcag
 240
 aaccctagca agcatggtgc tatccctgga ggtctaagca ttgggcctcc aggtaagtcc
 300
 tccattgatg actcctatgg ccggtacgat ttaatccaga acagtgagtc accagccagt
 360
 cctcccgtag ctgttcccca tagctggtca cgtgccaaat ctgacagtga taaaatctca
 420
 aatggctcta gcatcaactg gccccagaa ttccatccgg gagttccatg gaaaggactg
 480
 cagaatattg accctgagaa tgaccctgac gtcactcctg gcagtgtccc cactgggcct
 540
 accatcaaca ccaccatcca ggatgtcaac cgctacctcc tcaagagtgg agggctcctcc
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 ccgccatcat ctcagaatgc cacgctgctt tcttcgagtg cctggccact cagtgcctcc
 660
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 720
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 780
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 900
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 1140

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1151

<210> 3534
<211> 313
<212> PRT
<213> Homo sapiens

<400> 3534
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20 25 30
Met Asp Asn Leu Pro Ser Ala Ala Ser Pro Leu Glu Gln Asn Pro Ser
35 40 45
Lys His Gly Ala Ile Pro Gly Gly Leu Ser Ile Gly Pro Pro Gly Lys
50 55 60
Ser Ser Ile Asp Asp Ser Tyr Gly Arg Tyr Asp Leu Ile Gln Asn Ser
65 70 75 80
Glu Ser Pro Ala Ser Pro Pro Val Ala Val Pro His Ser Trp Ser Arg
85 90 95
Ala Lys Ser Asp Ser Asp Lys Ile Ser Asn Gly Ser Ser Ile Asn Trp
100 105 110
Pro Pro Glu Phe His Pro Gly Val Pro Trp Lys Gly Leu Gln Asn Ile
115 120 125
Asp Pro Glu Asn Asp Pro Asp Val Thr Pro Gly Ser Val Pro Thr Gly
130 135 140
Pro Thr Ile Asn Thr Thr Ile Gln Asp Val Asn Arg Tyr Leu Leu Lys
145 150 155 160
Ser Gly Gly Ser Ser Pro Pro Ser Ser Gln Asn Ala Thr Leu Pro Ser
165 170 175
Ser Ser Ala Trp Pro Leu Ser Ala Ser Gly Tyr Ser Ser Ser Phe Ser
180 185 190
Ser Ile Ala Ser Ala Pro Ser Val Ala Gly Lys Leu Ser Asp Ile Lys
195 200 205
Ser Thr Trp Ser Ser Gly Pro Thr Ser His Thr Gln Ala Ser Leu Ser
210 215 220
His Glu Leu Trp Lys Val Pro Arg Asn Ser Thr Ala Pro Thr Arg Pro
225 230 235 240
Pro Pro Gly Leu Thr Asn Pro Lys Pro Ser Ser Thr Trp Gly Ala Ser
245 250 255
Pro Leu Gly Trp Thr Ser Ser Tyr Ser Ser Gly Ser Ala Trp Ser Thr
260 265 270
Asp Thr Ser Gly Arg Thr Ser Ser Trp Leu Val Leu Arg Asn Leu Thr
275 280 285
Pro Gln Val Gln Tyr Gly Ala Pro Ala Ser Leu Ser Met Ile Gln Gly
290 295 300
Gly Phe Pro Leu Gly Pro Gln Cys Arg
305 310

<210> 3535
<211> 723
<212> DNA
<213> Homo sapiens

<400> 3535
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120
cggcagacct gctacagggt ctctctgctg gtgaccaccc accccacaac cactcaagaa
180
gcctcatcaa aacattgttg gagaaaactg ggtgcccacg gaggagaaac ggaatgcaag
240
gagattgcaa tctgtgcttt gaaccagatg cactattact aatagctgga ggaaattttg
300
aagatcagct tagagaagaa gtggtccaga gagttttctt tctccttctc tattacatta
360
ttcatcagga agagatctgt tcttcaaagc tcaacatgag taataaagag tataaatttt
420
acctacacag cctactgagc ctcaggcagg atgaagattc ctctttcctt tcacagaatg
480
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540
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600
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720
gta
723

<210> 3536
<211> 163
<212> PRT
<213> Homo sapiens

<400> 3536
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Ile Ala Gly Gly Asn Phe Glu Asp Gln Leu Arg Glu Glu Val Val Gln
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Arg Val Ser Leu Leu Leu Tyr Tyr Ile Ile His Gln Glu Glu Ile
35 40 45
Cys Ser Ser Lys Leu Asn Met Ser Asn Lys Glu Tyr Lys Phe Tyr Leu
50 55 60
His Ser Leu Leu Ser Leu Arg Gln Asp Glu Asp Ser Ser Phe Leu Ser
65 70 75 80
Gln Asn Glu Thr Glu Asp Ile Leu Ala Phe Thr Arg Gln Tyr Phe Asp
85 90 95
Thr Ser Gln Ser Gln Cys Met Glu Thr Lys Thr Leu Gln Lys Lys Ser
100 105 110
Gly Ile Val Ser Ser Glu Gly Ala Asn Glu Ser Thr Leu Pro Gln Leu
115 120 125
Ala Ala Met Ile Ile Thr Leu Ser Leu Gln Gly Val Cys Leu Gly Gln
130 135 140
Gly Asn Leu Pro Ser Pro Asp Tyr Phe Thr Glu Tyr Ile Phe Ser Ser

145 150 155 160
Leu Asn Arg

<210> 3537
<211> 714
<212> DNA
<213> Homo sapiens

<400> 3537
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120
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180
atgacaggcc ccgcgtgggc gaccagccag ccctggggac gggcacgcca cgccacacac
240
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gcacctcaag gctgggggag gggcaggggc agggaggagc cgtggggtgt ccctgggtgg
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<210> 3538
<211> 154
<212> PRT
<213> Homo sapiens

<400> 3538
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20 25 30
Leu Lys Asp Pro Ser Ser Asn Pro Ala Gly Pro Arg Ala Thr Ala Gly
35 40 45
Gln Gly Val Ala Pro Gly Phe Arg His Ala Thr Thr Thr Arg Ala Arg
50 55 60
Ala Thr His Ala Ser Cys Ala His Leu Thr His Thr Pro Leu Pro Gly
65 70 75 80
His Ala Asp Thr Pro Gln Pro His Thr Ser His Ala Val His Leu Arg
85 90 95
Leu Leu Thr Ser His Ala Gln Cys Trp Cys Thr Phe Ala Ser His Met

100 105 110
Leu Pro Ser Pro Pro Thr Gln Gly His Pro Thr Ala Pro Pro Cys Pro
115 120 125
Cys Pro Ser Pro Ser Leu Glu Val Pro Cys Pro Ala Gly Pro Val Asn
130 135 140
Met Gln Trp Glu Ser Gln Ala Val Gln Trp
145 150

<210> 3539
<211> 818
<212> DNA
<213> Homo sapiens

<400> 3539
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120
cgggggggcgg aggttgcagt gagccgagat cgcgcaggta cgctccagtc tgggcgacaa
180
gagcgaaact cgatatcaaa aaaaaaaaaa acgtcctgat cccagagcct cttcacgcgt
240
cccctaccac agcacttcag agaagcaggt ctttaatcag tgtgtctaga tgcagctgct
300
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360
cagaatcaga cgacctcgg ttcttcaga gccaagctgg gcaacttccc ctggcaagcc
420
ttcaccagta tccacggccg tggggggcgg gccctgctgg gggacagatg gatcctcact
480
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540
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600
cgtgtcgttg tgcacccga ctaccgtcag aatgagtcac ataactttag cggggacatc
660
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720
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<212> PRT
<213> Homo sapiens

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50 55 60
Trp Ile Leu Thr Ala Ala His Thr Val Tyr Pro Lys Asp Ser Val Ser
65 70 75 80
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Asp Glu Met Leu Lys Leu Gly Asn His Pro Val His Arg Val Val Val
100 105 110
His Pro Asp Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile
115 120 125
Ala Leu Leu Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu
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Pro Val Cys Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu
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<211> 722

<212> DNA

<213> Homo sapiens

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 Arg Gln Glu Pro Asp Asn Thr Gly Val Leu Leu Leu Leu Ser Ser Ile
 50 55 60
 His Phe Gln Cys Arg Arg Leu Asp Arg Ser Ala His Phe Ser Thr Leu
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 Asn Val Tyr Lys Glu Arg Gly Gln Leu Gln Glu Ala Ile Glu His Tyr
 100 105 110
 Arg His Ala Leu Arg Leu Lys Pro Asp Phe Ile Asp Gly Tyr Ile Asn
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 <213> Homo sapiens

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<211> 273

<212> PRT

<213> Homo sapiens

<400> 3544

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Val	Arg	Ala	Ser	Ile	Thr	Asp	Pro	Gly	Arg	Leu	Pro	Glu	Asn	Pro	Lys
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225 230 235 240
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<212> DNA
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<211> 792

<212> PRT

<213> Homo sapiens

<400> 3546

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Leu	Ala	Asp	Pro	Gly	Trp	Ala	Ser	Ile	Ser	Arg	Gly	Val	Leu	Val	Cys
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Asp	Glu	Cys	Cys	Ser	Val	His	Arg	Ser	Leu	Gly	Arg	His	Ile	Ser	Ile
	50					55				60					
Val	Lys	His	Leu	Arg	His	Ser	Ala	Trp	Pro	Pro	Thr	Leu	Leu	Gln	Met
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Val	His	Thr	Leu	Ala	Ser	Asn	Gly	Ala	Asn	Ser	Ile	Trp	Glu	His	Ser
			85						90				95		
Leu	Leu	Asp	Pro	Ala	Gln	Val	Gln	Ser	Gly	Arg	Arg	Lys	Ala	Asn	Pro
			100					105					110		
Gln	Asp	Lys	Val	His	Pro	Ile	Lys	Ser	Glu	Phe	Ile	Arg	Ala	Lys	Tyr
	115						120					125			
Gln	Met	Leu	Ala	Phe	Val	His	Lys	Leu	Pro	Cys	Arg	Asp	Asp	Asp	Gly

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Val Thr Ala Lys Asp Leu Ser Lys Gln Leu His Ser Ser Val Arg Thr
145 150 155 160
Gly Asn Leu Glu Thr Cys Leu Arg Leu Leu Ser Leu Gly Ala Gln Ala
165 170 175
Asn Phe Phe His Pro Glu Lys Gly Thr Thr Pro Leu His Val Ala Ala
180 185 190
Lys Ala Gly Gln Thr Leu Gln Ala Glu Leu Leu Val Val Tyr Gly Ala
195 200 205
Asp Pro Gly Ser Pro Asp Val Asn Gly Arg Thr Pro Ile Asp Tyr Ala
210 215 220
Arg Gln Ala Gly His His Glu Leu Ala Glu Arg Leu Val Glu Cys Gln
225 230 235 240
Tyr Glu Leu Thr Asp Arg Leu Ala Phe Tyr Leu Cys Gly Arg Lys Pro
245 250 255
Asp His Lys Asn Gly His Tyr Ile Ile Pro Gln Met Ala Asp Arg Ser
260 265 270
Arg Gln Lys Cys Met Ser Gln Ser Leu Asp Leu Ser Glu Leu Ala Lys
275 280 285
Ala Ala Lys Lys Lys Leu Gln Ala Leu Ser Asn Arg Leu Phe Glu Glu
290 295 300
Leu Ala Met Asp Val Tyr Asp Glu Val Asp Arg Arg Glu Asn Asp Ala
305 310 315 320
Val Trp Leu Ala Thr Gln Asn His Ser Thr Leu Val Thr Glu Arg Ser
325 330 335
Ala Val Pro Phe Leu Pro Val Asn Pro Glu Tyr Ser Ala Thr Arg Asn
340 345 350
Gln Gly Arg Gln Lys Leu Ala Arg Phe Asn Ala Arg Glu Phe Ala Thr
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370 375 380
Ser Leu Ser Ser Pro Thr Asp Asn Leu Glu Leu Ser Leu Arg Ser Gln
385 390 395 400
Ser Asp Leu Asp Asp Gln His Asp Tyr Asp Ser Val Ala Ser Asp Glu
405 410 415
Asp Thr Asp Gln Glu Pro Leu Arg Ser Thr Gly Ala Thr Arg Ser Asn
420 425 430
Arg Ala Arg Ser Met Asp Ser Ser Asp Leu Ser Asp Gly Ala Val Thr
435 440 445
Leu Gln Glu Tyr Leu Glu Leu Lys Lys Ala Leu Ala Thr Ser Glu Ala
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Lys Val Gln Gln Leu Met Lys Val Asn Ser Ser Leu Ser Asp Glu Leu
465 470 475 480
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485 490 495
Ala Glu Asn Leu Gln Leu Arg Gln Pro Pro Gly Pro Val Pro Thr Pro
500 505 510
Pro Leu Pro Ser Glu Arg Ala Glu His Thr Pro Met Ala Pro Gly Gly
515 520 525
Ser Thr His Arg Arg Asp Arg Gln Ala Phe Ser Met Tyr Glu Pro Gly
530 535 540
Ser Ala Leu Lys Pro Phe Gly Gly Pro Pro Gly Asp Glu Leu Thr Thr
545 550 555 560
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565 570 575
 Ser Val His Val Pro Ala Gly Leu Tyr Arg Ile Arg Lys Gly Val Ser
 580 585 590
 Ala Ser Ala Val Pro Phe Thr Pro Ser Ser Pro Leu Leu Ser Cys Ser
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 Gln Glu Gly Ser Arg His Thr Ser Lys Leu Ser Arg His Gly Ser Gly
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 Ala Asp Ser Asp Tyr Glu Asn Thr Gln Ser Gly Asp Pro Leu Leu Gly
 625 630 635 640
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 Pro Glu Leu Glu Ser Leu Asp Gly Asp Leu Asp Pro Gly Leu Pro Ser
 660 665 670
 Thr Glu Asp Val Ile Leu Lys Thr Glu Gln Val Thr Lys Asn Ile Gln
 675 680 685
 Glu Leu Leu Arg Ala Ala Gln Glu Phe Lys His Asp Ser Phe Val Pro
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 Cys Ser Glu Lys Ile His Leu Ala Val Thr Glu Met Ala Ser Leu Phe
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 Pro Lys Arg Pro Ala Leu Glu Pro Val Arg Ser Ser Leu Arg Leu Leu
 725 730 735
 Asn Ala Ser Ala Tyr Arg Leu Gln Ser Glu Cys Arg Lys Thr Val Pro
 740 745 750
 Pro Glu Pro Gly Ala Pro Val Asp Phe Gln Leu Leu Thr Gln Gln Val
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<210> 3547

<211> 1039

<212> DNA

<213> Homo sapiens

<400> 3547

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<210> 3548

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3548

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			20					25					30		
Gly	Gln	Leu	Gly	His	Asn	Ser	Thr	Ser	His	Glu	Ile	Asn	Pro	Arg	Lys
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Val	Phe	Glu	Leu	Met	Gly	Ser	Ile	Val	Thr	Glu	Ile	Ala	Cys	Gly	Arg
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Lys	Ser	Pro	Phe	Thr	Val	Lys	Gly	Asn	Trp	Tyr	Pro	Tyr	Asn	Gly	Gln
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Gly	Arg	Phe	Pro	Val	Glu	Ile	Ala	Asn	Glu	Ile	Asp	Gly	Thr	Phe	Ser
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Ser	Ser	Gly	Cys	Leu	Asn	Gly	Ser	Phe	Leu	Ala	Val	Ser	Asn	Asp	Asp
		195					200						205		
His	Tyr	Arg	Thr	Gly	Thr	Arg	Phe	Ser	Gly	Val	Asp	Met	Asn	Ala	Ala
	210					215					220				
Arg	Leu	Leu	Phe	His	Lys	Leu	Ile	Gln	Pro	Asp	His	Pro	Gln	Ile	Ser

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<400> 3549
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120
agatatgaga aaattcatgg aagaagtaag gaaaaggaga gagctagtct agataaaaaa
180
agagataaag actacagaag gaaagagatc ttgccttttg aaaagatgaa ggaacaaagg
240
ttgagagaac atttagttcg ttttgaaagg ctgcgacgag caatggaact tcgaagacga
300
agagagattg cagagagaga gcgtcgagag cgagaacgca ttagaataat tcgtgaacgg
360
gaagaacggg aacgcttaca gagagagaga gagcgcctag aaattgaaag gcaaaaacta
420
gagagagaga gaatggaacg cgaacgcttg gaaagggaac gcattcgtat tgaacaggaa
480
cgctcgtaagg aagctgaacg gattgctcga gaaagagagg aactcagaag gcaacaacag
540
cagcttcggt atgaacaaga aaaaaggaat tccttgaaac gcccacgtga tgtagatcat
600
agggcgagatg atccttactg gagcgagaat aaaaagttgt ctctagatac agatgcacga
660
tttggccatg gatccgacta ctctcgccaa cagaacagat ttaatgactt tgatcaccga
720
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780
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840
agcttcgaaa gatatcccaa aaatttcagt gactccagaa gaaatgagcc tccaccacca
900
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960

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acggtgatta ttcattgacag gcctgatatc actcatccta gacatcctcg agaggcaggg
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cccaatcctt ccagaccac cagctggaaa agtgatggaa gcatgtccac tgacaaacgg
1080
gaaacaagag ttgaaaggcc agaacgatct gggagagaag tatcagggca cagtgtgaga
1140
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1200
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1320
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1380
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1440
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1740
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1980
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2040
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aattgtaaaa tgagaaccga ttttcagttt agtgtagcag cacacttgtt caggtttgca
2160
tggtatgaaa ccaaatagat tcatgaaacc ttggccatga ggtttgtttc acaaggttct
2220
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2280
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2340
aagtggaaaa aaaccaggt tctagatggg tgaatcagtt gggttttgta aatacttgta
2400
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2520
aaaaaaaaa aaaaaaaaaa aa
2542

<210> 3550
<211> 500
<212> PRT
<213> Homo sapiens

<400> 3550
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His Cys Arg Pro Ser Arg Arg Gly Arg Tyr Glu Lys Ile His Gly Arg
35 40 45
Ser Lys Glu Lys Glu Arg Ala Ser Leu Asp Lys Lys Arg Asp Lys Asp
50 55 60
Tyr Arg Arg Lys Glu Ile Leu Pro Phe Glu Lys Met Lys Glu Gln Arg
65 70 75 80
Leu Arg Glu His Leu Val Arg Phe Glu Arg Leu Arg Arg Ala Met Glu
85 90 95
Leu Arg Arg Arg Arg Glu Ile Ala Glu Arg Glu Arg Arg Glu Arg Glu
100 105 110
Arg Ile Arg Ile Ile Arg Glu Arg Glu Glu Arg Glu Arg Leu Gln Arg
115 120 125
Glu Arg Glu Arg Leu Glu Ile Glu Arg Gln Lys Leu Glu Arg Glu Arg
130 135 140
Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Ile Arg Ile Glu Gln Glu
145 150 155 160
Arg Arg Lys Glu Ala Glu Arg Ile Ala Arg Glu Arg Glu Glu Leu Arg
165 170 175
Arg Gln Gln Gln Gln Leu Arg Tyr Glu Gln Glu Lys Arg Asn Ser Leu
180 185 190
Lys Arg Pro Arg Asp Val Asp His Arg Arg Asp Asp Pro Tyr Trp Ser
195 200 205
Glu Asn Lys Lys Leu Ser Leu Asp Thr Asp Ala Arg Phe Gly His Gly
210 215 220
Ser Asp Tyr Ser Arg Gln Gln Asn Arg Phe Asn Asp Phe Asp His Arg
225 230 235 240
Glu Arg Gly Arg Phe Pro Glu Ser Ser Ala Val Gln Ser Ser Ser Phe
245 250 255
Glu Arg Arg Asp Arg Phe Val Gly Gln Ser Glu Gly Lys Lys Ala Arg
260 265 270
Pro Thr Ala Arg Arg Glu Asp Pro Ser Phe Glu Arg Tyr Pro Lys Asn
275 280 285
Phe Ser Asp Ser Arg Arg Asn Glu Pro Pro Pro Pro Arg Asn Glu Leu
290 295 300
Arg Glu Ser Asp Arg Arg Glu Val Arg Gly Glu Arg Asp Glu Arg Arg
305 310 315 320
Thr Val Ile Ile His Asp Arg Pro Asp Ile Thr His Pro Arg His Pro
325 330 335
Arg Glu Ala Gly Pro Asn Pro Ser Arg Pro Thr Ser Trp Lys Ser Asp
340 345 350
Gly Ser Met Ser Thr Asp Lys Arg Glu Thr Arg Val Glu Arg Pro Glu
355 360 365
Arg Ser Gly Arg Glu Val Ser Gly His Ser Val Arg Gly Ala Pro Pro

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      370      375      380
Gly Asn Arg Ser Ser Ala Ser Gly Tyr Gly Ser Arg Glu Gly Asp Arg
385      390      395      400
Gly Val Ile Thr Asp Arg Gly Gly Gly Ser Gln His Tyr Pro Glu Glu
      405      410      415
Arg His Val Val Glu Arg His Gly Arg Asp Thr Ser Gly Pro Arg Lys
      420      425      430
Glu Trp His Gly Pro Pro Ser Gln Gly Pro Ser Tyr His Asp Thr Arg
      435      440      445
Arg Met Gly Asp Gly Arg Ala Gly Ala Gly Met Ile Thr Gln His Ser
      450      455      460
Ser Asn Ala Ser Pro Ile Asn Arg Ile Val Gln Ile Ser Gly Asn Ser
465      470      475      480
Met Pro Arg Gly Ser Gly Ser Gly Phe Lys Pro Phe Lys Gly Gly Pro
      485      490      495
Pro Arg Arg Phe
      500

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<210> 3551
 <211> 545
 <212> DNA
 <213> Homo sapiens

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<400> 3551
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120
tttcttgtga ctggctataa attccatgca gtgctggaat gtgcttctca cagtttagagt
180
gctgagcacc tgttttattt cacactccct tgattcctgg ggtaaattccc atctccgcag
240
catgggctcc agttaaattc attagtggtc cagatgtgtg tcccctgtca gctggccaag
300
taacccact gtttatcgac aggttctcag gaatcagata gctcgcagtc ggccaagaag
360
gacatgctgg ctgccttgaa gtccaggcag gaagctctgg aggaaccct gcgtcagagg
420
ctggaggaac tgaagaagct gtgtctccga gaagctgtaa gcctttccta gtcacatccc
480
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gtcat
545

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<210> 3552
 <211> 55
 <212> PRT
 <213> Homo sapiens

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<400> 3552
Pro His Cys Leu Ser Thr Gly Ser Gln Glu Ser Asp Ser Ser Gln Ser
1      5      10      15
Ala Lys Lys Asp Met Leu Ala Ala Leu Lys Ser Arg Gln Glu Ala Leu

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20 25 30
Glu Glu Thr Leu Arg Gln Arg Leu Glu Glu Leu Lys Lys Leu Cys Leu
35 40 45
Arg Glu Ala Val Ser Leu Ser
50 55

<210> 3553
<211> 1412
<212> DNA
<213> Homo sapiens

<400> 3553
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ggaagattta atgaaagggtt tattctgtct ctggcctctt gtaagaagtg tctcgtcatt
120
gatgaccagc tcaacatcct gcccatctcc tcccacgttg ccaccatgga ggccctgcct
180
ccccagactc cggatgagag tcttggtcct tctgatctgg agctgaggga gttgaaggag
240
agcttgacag acaccagcc tgtgggtgtg ttggtggact gctgtaagac tctagaccag
300
gccaaagctg tcttgaaatt tatcgagggc atctctgaaa agaccctgag gagtactgtt
360
gcactcacag ctgctcgagg acggggaaaa tctgcagccc tgggattggc gattgctggg
420
gcggtggcat ttgggtactc caatatcttt gttacctccc caagccctga taacctccat
480
actctgtttg aatttgtatt taaaggattt gatgctctgc aatatcagga acatctggat
540
tatgagatta tccagtctct aaatcctgaa tttaacaaag cagtgatcat agtgaatgta
600
tttcgagaac acaggcagac tattcagrat atacatcctg cagatgctgt gaagctgggc
660
caggctgaac tagttgtgat tgatgaagct gccgccatcc cctccccctt ggtgaagagc
720
ctacttgccc cctaccttgt ttctatggca tccaccatca atggctatga gggcactggc
780
cggtcactgt ccctcaagct aattcagcag ctccgtcaac agagcgccca gagccaggtc
840
agcaccactg ctgagaataa gaccacgacg acagccagat tggcatcagc gcggacactg
900
catgagggtt ccctccagga gtcaatccga tacgccccctg gggatgcagt ggagaagtgg
960
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1020
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1080
gcctctgaag ttttctcca acggcttatg gccctctacg tggcttctca ctacaagaac
1140
tctcccaatg atctccagat gctctccgat gcacctctc accatctctt ctgcctcttg
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cctcctgtgc cccccacca gaatgccctt ccaaaagtgc ttgctgttat ccaggtatag
1260

gaacagagggc gtccttgtgg cagtgatttg gggaaccact gaggcacag gaattagtgg
1320
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1380
tgggtctgct gagacaggtg actaggggtgc ac
1412

<210> 3554
<211> 419
<212> PRT
<213> Homo sapiens

<400> 3554
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Gln Asp Val Val Gly Arg Phe Asn Glu Arg Phe Ile Leu Ser Leu Ala
20 25 30
Ser Cys Lys Lys Cys Leu Val Ile Asp Asp Gln Leu Asn Ile Leu Pro
35 40 45
Ile Ser Ser His Val Ala Thr Met Glu Ala Leu Pro Pro Gln Thr Pro
50 55 60
Asp Glu Ser Leu Gly Pro Ser Asp Leu Glu Leu Arg Glu Leu Lys Glu
65 70 75 80
Ser Leu Gln Asp Thr Gln Pro Val Gly Val Leu Val Asp Cys Cys Lys
85 90 95
Thr Leu Asp Gln Ala Lys Ala Val Leu Lys Phe Ile Glu Gly Ile Ser
100 105 110
Glu Lys Thr Leu Arg Ser Thr Val Ala Leu Thr Ala Ala Arg Gly Arg
115 120 125
Gly Lys Ser Ala Ala Leu Gly Leu Ala Ile Ala Gly Ala Val Ala Phe
130 135 140
Gly Tyr Ser Asn Ile Phe Val Thr Ser Pro Ser Pro Asp Asn Leu His
145 150 155 160
Thr Leu Phe Glu Phe Val Phe Lys Gly Phe Asp Ala Leu Gln Tyr Gln
165 170 175
Glu His Leu Asp Tyr Glu Ile Ile Gln Ser Leu Asn Pro Glu Phe Asn
180 185 190
Lys Ala Val Ile Ile Val Asn Val Phe Arg Glu His Arg Gln Thr Ile
195 200 205
Gln Tyr Ile His Pro Ala Asp Ala Val Lys Leu Gly Gln Ala Glu Leu
210 215 220
Val Val Ile Asp Glu Ala Ala Ala Ile Pro Leu Pro Leu Val Lys Ser
225 230 235 240
Leu Leu Gly Pro Tyr Leu Val Phe Met Ala Ser Thr Ile Asn Gly Tyr
245 250 255
Glu Gly Thr Gly Arg Ser Leu Ser Leu Lys Leu Ile Gln Gln Leu Arg
260 265 270
Gln Gln Ser Ala Gln Ser Gln Val Ser Thr Thr Ala Glu Asn Lys Thr
275 280 285
Thr Thr Thr Ala Arg Leu Ala Ser Ala Arg Thr Leu His Glu Val Ser
290 295 300
Leu Gln Glu Ser Ile Arg Tyr Ala Pro Gly Asp Ala Val Glu Lys Trp
305 310 315 320
Leu Asn Asp Leu Leu Cys Leu Asp Cys Leu Asn Ile Thr Arg Ile Val

2717

ggttgccccca ccatacctc
1038

<210> 3556
<211> 333
<212> PRT
<213> Homo sapiens

<400> 3556
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1 5 10 15
Arg Asp Lys Asn Ile Pro Ala Gly Leu Gln Ser Met Asn Gln Ala Leu
20 25 30
Gln Arg Arg Phe Ala Lys Gly Val Gln Tyr Asn Met Lys Ile Val Ile
35 40 45
Arg Gly Asp Arg Asn Thr Gly Lys Thr Ala Leu Trp His Arg Leu Gln
50 55 60
Gly Arg Pro Phe Val Glu Glu Tyr Ile Pro Thr Gln Glu Ile Gln Val
65 70 75 80
Thr Ser Ile His Trp Ser Tyr Lys Thr Thr Asp Asp Ile Val Lys Val
85 90 95
Glu Val Trp Asp Val Val Asp Lys Gly Lys Cys Lys Lys Arg Gly Asp
100 105 110
Gly Leu Lys Met Glu Asn Asp Pro Gln Glu Ala Glu Ser Glu Met Ala
115 120 125
Leu Asp Ala Glu Phe Leu Asp Val Tyr Lys Asn Cys Asn Gly Val Val
130 135 140
Met Met Phe Asp Ile Thr Lys Gln Trp Thr Phe Asn Tyr Ile Leu Arg
145 150 155 160
Glu Leu Pro Lys Val Pro Thr His Val Pro Val Cys Val Leu Gly Asn
165 170 175
Tyr Arg Asp Met Gly Glu His Arg Val Ile Xaa Cys Arg Thr Xaa Val
180 185 190
Arg Asp Phe Ile Asp Asn Leu Asp Arg Pro Pro Gly Ser Ser Tyr Phe
195 200 205
Arg Tyr Ala Glu Ser Ser Met Lys Asn Ser Phe Gly Leu Lys Tyr Leu
210 215 220
His Lys Phe Phe Asn Ile Pro Phe Leu Gln Leu Gln Arg Glu Thr Leu
225 230 235 240
Leu Arg Gln Leu Glu Thr Asn Gln Leu Asp Met Asp Ala Thr Leu Glu
245 250 255
Glu Leu Ser Val Gln Gln Glu Thr Glu Asp Gln Asn Tyr Gly Ile Phe
260 265 270
Leu Glu Met Met Glu Ala Arg Ser Arg Gly His Ala Ser Pro Leu Ala
275 280 285
Ala Asn Gly Gln Ser Pro Ser Pro Gly Ser Gln Ser Pro Val Val Pro
290 295 300
Ala Gly Ala Val Ser Thr Gly Ser Ser Ser Pro Gly Thr Ala Gln Pro
305 310 315 320
Ala Pro Gln Leu Pro Leu Asn Gly Cys Pro Thr Ile Leu
325 330

<210> 3557
<211> 486

<212> DNA

<213> Homo sapiens

<400> 3557

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ccggcattga tcaagtccat ctgggctatg gccataagcc aacaccagtt ctatctggac
120
agaaagcaga gtaagtccaa aatccatgca gcacgcagcc tgagtgagat cgccatcgac
180
ctgaccgaga cggggacgct gaagacctcg aagctggcca acatgggtag caaggggaag
240
atcatcagcg gcagcagcgg cagcctgctg tcttcaggat ctggtgccag gagacactgc
300
attctactcc caggttctca ggaatcagat agctcgcagt cggccaagaa ggacatgctg
360
gctgccttga agtccaggca ggaagctctg gaggaacccc tgcgtcagag gctggaggaa
420
ctgaagaagc tgtgtctccg agaagctgag ctcacgggca agctgccagt agaatatccc
480
ctggat
486

<210> 3558

<211> 162

<212> PRT

<213> Homo sapiens

<400> 3558

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Trp	Tyr	Ala	Cys	Pro	Ala	Leu	Ile	Lys	Ser	Ile	Trp	Ala	Met	Ala	Ile
			20					25					30		
Ser	Gln	His	Gln	Phe	Tyr	Leu	Asp	Arg	Lys	Gln	Ser	Lys	Ser	Lys	Ile
		35					40				45				
His	Ala	Ala	Arg	Ser	Leu	Ser	Glu	Ile	Ala	Ile	Asp	Leu	Thr	Glu	Thr
	50				55					60					
Gly	Thr	Leu	Lys	Thr	Ser	Lys	Leu	Ala	Asn	Met	Gly	Ser	Lys	Gly	Lys
65				70					75					80	
Ile	Ile	Ser	Gly	Ser	Ser	Gly	Ser	Leu	Leu	Ser	Ser	Gly	Ser	Gly	Ala
			85					90					95		
Arg	Arg	His	Cys	Ile	Leu	Leu	Pro	Gly	Ser	Gln	Glu	Ser	Asp	Ser	Ser
			100					105					110		
Gln	Ser	Ala	Lys	Lys	Asp	Met	Leu	Ala	Ala	Leu	Lys	Ser	Arg	Gln	Glu
		115					120					125			
Ala	Leu	Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Lys	Leu
	130					135				140					
Cys	Leu	Arg	Glu	Ala	Glu	Leu	Thr	Gly	Lys	Leu	Pro	Val	Glu	Tyr	Pro
145					150					155					160
Leu	Asp														

<210> 3559

<211> 673

<212> DNA

<213> Homo sapiens

<400> 3559

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120
gccggcgaag caggggctat cgagcgggtc ctgagggatt acagcgacaa gcatagggct
180
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240
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300
attctctcca gagacaaaaa ggtttttagtt cctgtgacaa ctaaggaaaa tatgcagata
360
ctgctgcgac tagccaagct aaatgagtta gatgattctt tggagaaaagt atcagagttc
420
ccagttattg tggagtcatt aaaatgtctg tgtaatatag tgttcaacag tcagatggca
480
cagcagctca gcctggaact taatcttgct gcaaagctct gtaacctcct gagaaagtgc
540
aaggaccgga aatttatcaa tgacattaag tgctttgact tgcgcttgct cttccttctg
600
tcacttttgc acaccgacat caggtcaciaa ttgcgctatg agctccaggg actaccgctg
660
ctaacgcaga tcg
673

<210> 3560

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3560

Met Asp Glu Glu Arg Ala Leu Tyr Ile Val Arg Ala Gly Glu Ala Gly
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Ala Ile Glu Arg Val Leu Arg Asp Tyr Ser Asp Lys His Arg Ala Thr
20 25 30
Phe Lys Phe Glu Ser Thr Asp Glu Asp Lys Arg Lys Lys Leu Cys Glu
35 40 45
Gly Ile Phe Lys Val Leu Ile Lys Asp Ile Pro Thr Thr Cys Gln Val
50 55 60
Ser Cys Leu Glu Val Leu Arg Ile Leu Ser Arg Asp Lys Lys Val Leu
65 70 75 80
Val Pro Val Thr Thr Lys Glu Asn Met Gln Ile Leu Leu Arg Leu Ala
85 90 95
Lys Leu Asn Glu Leu Asp Asp Ser Leu Glu Lys Val Ser Glu Phe Pro
100 105 110
Val Ile Val Glu Ser Leu Lys Cys Leu Cys Asn Ile Val Phe Asn Ser
115 120 125
Gln Met Ala Gln Gln Leu Ser Leu Glu Leu Asn Leu Ala Ala Lys Leu
130 135 140
Cys Asn Leu Leu Arg Lys Cys Lys Asp Arg Lys Phe Ile Asn Asp Ile

145 150 155 160
Lys Cys Phe Asp Leu Arg Leu Leu Phe Leu Leu Ser Leu Leu His Thr
 165 170 175
Asp Ile Arg Ser Gln Leu Arg Tyr Glu Leu Gln Gly Leu Pro Leu Leu
 180 185 190
Thr Gln Ile
 195

<210> 3561
<211> 523
<212> DNA
<213> Homo sapiens

<400> 3561
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ggctcacaga gctgactcag aagggccatt gtcacacact ggtaagagct gattctgagg
120
ggagggcatg agacgcctat tgcagagctg ctcaccagaa ggtcacagga atttagaaga
180
gaagctccta cctgcccccg atcatgcacg tggccactga ggatgccaga cgaggtgatg
240
ctgggtctcat agagaatgta cccgaaggac tgtccatttc cccattgac tggcagggttc
300
tccatgttga tgggcttttc agacttgatt ggctgcgtac agaagagatg gaggggtggg
360
caggctcagg aggagtgggg tcacagacag actctgcttg ggggctggca catggggtgg
420
aagcggaggt ttgggtgggtg ttttctactt tgacttctca ttgcactaaa catacaactc
480
tccaggggtga cggggaagag gagtggggca aaggggtgtg cac
523

<210> 3562
<211> 106
<212> PRT
<213> Homo sapiens

<400> 3562
Met His Val Ala Thr Glu Asp Ala Arg Arg Gly Asp Ala Gly Leu Ile
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Glu Asn Val Pro Glu Gly Leu Ser Ile Ser Pro Ile Asp Trp Gln Val
 20 25 30
Leu His Val Asp Gly Leu Phe Arg Leu Asp Trp Leu Arg Thr Glu Glu
 35 40 45
Met Glu Gly Trp Ala Gly Ser Gly Gly Val Gly Ser Gln Thr Asp Ser
50 55 60
Ala Trp Gly Leu Ala His Gly Val Glu Ala Glu Val Trp Trp Val Phe
65 70 75 80
Ser Thr Leu Thr Ser His Cys Thr Lys His Thr Thr Leu Gln Gly Asp
 85 90 95
Gly Glu Glu Glu Trp Gly Lys Gly Val Cys
 100 105

<210> 3563
<211> 359
<212> DNA
<213> Homo sapiens

<400> 3563
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cgaagccagg ggcgcgcggc gatgtgagcc atgagcgcga cgtggacgct gtcgccggag
120
cccctgccgc cgtcgacggg gccccagtg ggcgcgggcc tggacgcgga gcagcgcacg
180
gtgttcgcct tcgtgctctg cctgctcgtg gtgctgggtc tgttgatggt gcgctgcgtg
240
cgcacccctgc tcgaccccta cagccgcatt cccgcctcgt cctggaccga ccacaaggag
300
gcgctcgagc gcgggcagtt cgactacgcg ttggtgtgag gggcgcggcg ccccttagg
359

<210> 3564
<211> 82
<212> PRT
<213> Homo sapiens

<400> 3564
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Gly Pro Pro Val Gly Ala Gly Leu Asp Ala Glu Gln Arg Thr Val Phe
20 25 30
Ala Phe Val Leu Cys Leu Leu Val Val Leu Val Leu Met Val Arg
35 40 45
Cys Val Arg Ile Leu Leu Asp Pro Tyr Ser Arg Met Pro Ala Ser Ser
50 55 60
Trp Thr Asp His Lys Glu Ala Leu Glu Arg Gly Gln Phe Asp Tyr Ala
65 70 75 80
Leu Val

<210> 3565
<211> 580
<212> DNA
<213> Homo sapiens

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<211> 869

<212> PRT

<213> Homo sapiens

<400> 3568

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Phe	Gln	Lys	Gln	Leu	Arg	Gly	Gln	Ile	Ala	Arg	Arg	Val	Tyr	Arg	Gln
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Ala Phe Lys Asp Ser Pro Asn Pro Ser Glu His Gly His Ser Asp Gln
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Asp Ser Glu Glu Asp Phe Asp Ser Arg Phe Asp Thr Asp Asp Glu Leu
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Lys Glu Asn Gly Ile Asp Ile Ile Met Ala Asp Arg Thr Phe His Leu

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Lys Ala Pro Ile Asp Thr Pro Thr Gln Gln Leu Ile Gln Asp Ile Lys
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755 760 765
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Pro Gly Ser Leu Pro Leu Ser Ile Ala Arg Val Gln Thr Pro Pro Trp
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His Pro Pro Gly Ala Pro Ser Pro Gly Leu Leu Gln Asp Ser Asp Ser
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Pro Pro Glu Gln Val Thr Lys Val Thr Val Gly Arg Leu His Phe Ser
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Glu Thr Thr Ala Asn Asn Met Arg Lys Lys Gly Lys Pro Asn Pro Asp
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Gln Asn Tyr Thr Leu Ala Ala Gln Ile Ser Glu Arg Ile Ile Val Arg
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Ala Ser Asn Pro Gly Gln Phe Glu Ser Asp Ser Asp Val Leu Trp Gln
275 280 285
Arg Ala Gln Val Pro Asp Thr Val Phe His His Gly Arg Val Gly Ile
290 295 300
Asn Thr Asp Arg Pro Asp Glu Ala Leu Val Val His Gly Asn Val Lys
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Phe Met Glu Asn Val Gly Ala Val Lys Glu Leu Cys Lys Leu Thr Asp
420 425 430
Asn Leu Glu Thr Arg Ile Asp Glu Leu Glu Arg Trp Ser His Lys Leu
435 440 445
Ala Lys Leu Arg Arg Leu Asp Ser Leu Lys Ser Thr Gly Ser Ser Gly
450 455 460
Ala Phe Ser His Ala Gly Ser Gln Phe Ser Arg Ala Gly Ser Val Pro
465 470 475 480
His Lys Lys Arg Pro Pro Lys Val Ala Ser Lys Ser Ser Val Val
485 490 495
Pro Asp Gln Ala Cys Ile Ser Gln Arg Phe Leu Gln Gly Thr Ile Ile
500 505 510
Ala Leu Val Val Val Met Ala Phe Ser Val Val Ser Met Ser Thr Leu
515 520 525
Tyr Val Leu Ser Leu Arg Thr Glu Glu Asp Leu Val Asp Thr Asp Gly
530 535 540
Ser Phe Ala Val Ser Thr Ser Cys Leu Leu Ala Leu Leu Arg Pro Gln
545 550 555 560
Pro Pro Gly Gly Ser Glu Ala Leu Cys Pro Trp Ser Ser Gln Ser Phe
565 570 575
Gly Thr Thr Gln Leu Arg Gln Ser Pro Leu Thr Thr Gly Leu Pro Gly
580 585 590
Ile Gln Pro Ser Leu Leu Leu Val Thr Thr Ser Leu Thr Ser Ser Ala
595 600 605
Pro Gly Ser Ala Val Arg Thr Leu Asp Met Cys Ser Ser His Pro Cys
610 615 620
Pro Val Ile Cys Cys Ser Ser Pro Thr Thr Asn Pro Thr Thr Gly Pro
625 630 635 640
Ser Leu Gly Pro Ser Phe Asn Pro Gly His Val Leu Ser Pro Ser Pro
645 650 655
Ser Pro Ser Thr Asn Arg Ser Gly Pro Ser Gln Met Ala Leu Leu Pro
660 665 670
Val Thr Asn Ile Arg Ala Lys Ser Trp Gly Leu Ser Val Asn Gly Ile
675 680 685
Asp His Ser Lys His His Lys Ser Leu Glu Pro Leu Ala Ser Pro Ala
690 695 700
Val Pro Phe Pro Gly Gly Gln Gly Lys Ala Lys Asn Ser Pro Ser Leu
705 710 715 720
Gly Phe His Gly Arg Ala Arg Arg Gly Ala Leu Gln Ser Ser Val Gly
725 730 735
Pro Ala Glu Pro Thr Trp Ala Gln Gly Gln Ser Ala Ser Leu Leu Ala
740 745 750
Glu Pro Val Pro Ser Leu Thr Ser Ile Gln Val Leu Glu Asn Ser Met
755 760 765
Ser Ile Thr Ser Gln Tyr Cys Ala Pro Gly Asp Ala Cys Arg Pro Gly

770 775 780
 Asn Phe Thr Tyr His Ile Pro Val Ser Ser Gly Thr Pro Leu His Leu
 785 790 795 800
 Ser Leu Thr Leu Gln Met Asn Ser Ser Ser Pro Val Ser Val Val Leu
 805 810 815
 Cys Ser Leu Arg Ser Lys Glu Glu Pro Cys Glu Glu Gly Ser Leu Pro
 820 825 830
 Gln Ser Leu His Thr His Gln Asp Thr Gln Gly Thr Ser His Arg Trp
 835 840 845
 Pro Ile Thr Ile Leu Ser Phe Arg Glu Phe Thr Tyr His Phe Arg Val
 850 855 860
 Ala Leu Leu Gly Gln Ala Asn Cys Ser Ser Glu Ala Leu Ala Gln Pro
 865 870 875 880
 Ala Thr Asp Tyr His Phe His Phe Tyr Arg Leu Cys Asp
 885 890

<210> 3571
 <211> 528
 <212> DNA
 <213> Homo sapiens

<400> 3571
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 ttcaccgggg gcgtggtgag cgctggggac caggtgtcct atttctctt cgtcattctc
 120
 acggcgatg ccatgctgcc cttgggcatg cgggacgccg ccgtcgcggg cctcgctccc
 180
 tcactctcgc atctgctggt cctcgggctg tatcttgggc cacagccgga ctcacggcct
 240
 gcactgctgc cgcaggtgag cacgcaagta gcacaggctg cgctcaggac ggctctgcca
 300
 cgtgctagta ggctcctttt aggggggtgt tgagctgtga ctccaaggca aggtgcaacg
 360
 ctggggcgag gatacccaac cgtgcttttcg cagagctggt acaacagtgt gatgcaatgc
 420
 ctgctgttac cagaagaggg atccaggcca cacggaaggg agtcgtgtcg tggtttacc
 480
 cggggacaac agatgtggtt aatgaaacct tgacagagaa tgaaaaaa
 528

<210> 3572
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 3572
 Thr Arg Pro Leu Ser Gly Leu Val Trp Val Ala Leu Leu Ala Leu Gly
 1 5 10 15
 His Ala Phe Leu Phe Thr Gly Gly Val Val Ser Ala Trp Asp Gln Val
 20 25 30
 Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu
 35 40 45
 Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His

50 55 60
Leu Leu Val Leu Gly Leu Tyr Leu Gly Pro Gln Pro Asp Ser Arg Pro
65 70 75 80
Ala Leu Leu Pro Gln Val Ser Thr Gln Val Ala Gln Ala Ala Leu Arg
85 90 95
Thr Ala Leu Pro Arg Ala Ser Arg Leu Leu Leu Gly Gly Cys
100 105 110

<210> 3573

<211> 1236

<212> DNA

<213> Homo sapiens

<400> 3573

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120
ccctgcctgc tccccaaagc ccagccttca gccccccaa tcaatcccag ccacacacac
180
agtcccatctt ttcccatcca ttctggtact tgtgtgttca ataaacctgg tggacacaca
240
gcttcacata cccacacact cacagccaca aaccccagaa gtcattgcaca tgccgacgca
300
ccttggtggc catgcacaca caaccacact tgtgtgcaaa gtggcagaca caccacaca
360
tgcatagaag caagtctctg gaccccttct gcatccaca gagggggctc ccctgctgtg
420
tttgattggt tcttcgaagc ggcttgcctt gcctccgtgc aggaggatcc ccccatcctg
480
cggcagttcc ctccagactt cagggaccag gaagctatgc agatgggtgcc taaattctgc
540
ttcccttttg atgtggaag ggggcccccc agccccgccg tgcagcattt caccttcgcc
600
ctcacagacc ttgccggcaa ccgcagattt gggtttctgc gcctgcgggc gggtagccag
660
agctgtctct gtatcctcag ccacctgcct tggttcgagg tgttttaca gctattgaac
720
acagtgggag acctcctagc ccaggaccaa gtcaccgagg cagaggaaact tcttcaaat
780
ctgtttcagc agtccctgtc tgggccccag gcctcagtgg ggcttgagct gggcagcgga
840
gtgaagggtc ccagcgggca gggtagccca cccctaccc gggggaatag caagccgctt
900
tcttgcttcg tggccccgga ctccggccgc ctgccatcca tccctgagaa caggaacctt
960
acggagctgg tggtagccgt gactgacgag aacatcgtgg ggctgttcgc ggcgctcctg
1020
gccgagagaa gagtccctgt caccgccagc aaactcagca ccttgaggcg gggccgccg
1080
ggccgggggtg ggagcagggc ctggctccgc cccggggggc gggacaaggg ggctgattcc
1140
ttgctctaac cctactgcgc gagaccgag ggcgaagtcc tggccccgcc ccttcgaagg
1200

tctttgagag ttttaactctn gccccgccct cttggg
1236

<210> 3574
<211> 361
<212> PRT
<213> Homo sapiens

<400> 3574
Pro Gln Ile Lys Gly Ala Val Ser Phe Phe Pro Ala Thr Ser Gly Gln
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Asp His Pro Pro Cys Leu Leu Pro Lys Ala Gln Pro Ser Ala Pro Pro
20 25 30
Ile Asn Pro Ser His Thr His Ser Pro Ile Phe Ser Ile His Ser Gly
35 40 45
Thr Cys Val Phe Asn Lys Pro Gly Gly His Thr Ala Ser His Thr His
50 55 60
Thr Leu Thr Ala Thr Asn Pro Arg Ser His Ala His Ala Asp Ala Pro
65 70 75 80
Cys Gly Thr Cys Thr His Asn His Thr Cys Val Gln Ser Gly Arg His
85 90 95
Thr His Thr Cys Ile Glu Ala Ser Leu Trp Thr Pro Ser Ala Ser His
100 105 110
Arg Gly Gly Ser Pro Ala Val Phe Asp Trp Phe Phe Glu Ala Ala Cys
115 120 125
Pro Ala Ser Val Gln Glu Asp Pro Pro Ile Leu Arg Gln Phe Pro Pro
130 135 140
Asp Phe Arg Asp Gln Glu Ala Met Gln Met Val Pro Lys Phe Cys Phe
145 150 155 160
Pro Phe Asp Val Glu Arg Gly Pro Pro Ser Pro Ala Val Gln His Phe
165 170 175
Thr Phe Ala Leu Thr Asp Leu Ala Gly Asn Arg Arg Phe Gly Phe Cys
180 185 190
Arg Leu Arg Ala Gly Thr Gln Ser Cys Leu Cys Ile Leu Ser His Leu
195 200 205
Pro Trp Phe Glu Val Phe Tyr Lys Leu Leu Asn Thr Val Gly Asp Leu
210 215 220
Leu Ala Gln Asp Gln Val Thr Glu Ala Glu Glu Leu Leu Gln Asn Leu
225 230 235 240
Phe Gln Gln Ser Leu Ser Gly Pro Gln Ala Ser Val Gly Leu Glu Leu
245 250 255
Gly Ser Gly Val Thr Val Ser Ser Gly Gln Gly Ile Pro Pro Pro Thr
260 265 270
Arg Gly Asn Ser Lys Pro Leu Ser Cys Phe Val Ala Pro Asp Ser Gly
275 280 285
Arg Leu Pro Ser Ile Pro Glu Asn Arg Asn Leu Thr Glu Leu Val Val
290 295 300
Ala Val Thr Asp Glu Asn Ile Val Gly Leu Phe Ala Ala Leu Leu Ala
305 310 315 320
Glu Arg Arg Val Leu Leu Thr Ala Ser Lys Leu Ser Thr Leu Arg Arg
325 330 335
Gly Pro Pro Gly Arg Gly Gly Ser Arg Ala Trp Leu Arg Pro Gly Gly
340 345 350
Arg Asp Lys Gly Ala Asp Ser Leu Leu

355

360

<210> 3575
 <211> 769
 <212> DNA
 <213> Homo sapiens

<400> 3575
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 120
 cagtcaaagg tgctggagtt gtgtctgtat agaagtaagt cgtcccacca acagtttcct
 180
 tttggatcac ctgaccagaa gacggagtct gagaaacagg attattaaca gatgtagagg
 240
 cactagaagg caccatgtaa cttgctggat ttggagtgtg acttcttctt ctgggagcag
 300
 gagaagtatg tggagtaatc ttgggggaat gaagagggga agaccagca gacaacgaca
 360
 ttctgaaga ggatgtaaaa atgtttctta atggagcaat aattggtttt agagaacaag
 420
 tctggaatat aaaatgcaaa cattcatttg gaagaaacat catctttggg atcgtaatg
 480
 caaagatgaa ggaaataatt ttatcttgtt ttgttgtaga aaaagctctg attaaagcaa
 540
 atgtaaagtt tcttttttca aatgtactta ttccaaata tgtagcaga tttactgcaa
 600
 gaatagtctc ctccatatca aggtttacat caggaaattt aatagcaaga gtgacaaaaa
 660
 atttaataaa ttaatggaag agtgggaagt aacagaattg tggctcttca taaaattatg
 720
 ccttttataa aagtttttct ttataaaaag gcataattcc ttttttatt
 769

<210> 3576
 <211> 205
 <212> PRT
 <213> Homo sapiens

<400> 3576
 Met Glu Glu Thr Ile Leu Ala Val Asn Leu Leu Thr Tyr Leu Glu Ile
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 Ser Thr Phe Glu Lys Arg Asn Phe Thr Phe Ala Leu Ile Arg Ala Phe
 20 25 30
 Ser Thr Thr Lys Gln Asp Lys Ile Ile Ser Phe Ile Phe Ala Leu Thr
 35 40 45
 Ile Pro Lys Met Met Phe Leu Pro Asn Glu Cys Leu His Phe Ile Phe
 50 55 60
 Gln Thr Cys Ser Leu Lys Pro Ile Ile Ala Pro Leu Arg Asn Ile Phe
 65 70 75 80
 Thr Ser Ser Ser Gly Met Ser Leu Ser Ala Gly Ser Ser Pro Leu His
 85 90 95
 Ser Pro Lys Ile Thr Pro His Thr Ser Pro Ala Pro Arg Arg Arg Ser

2736

	100		105		110										
His	Thr	Pro	Asn	Pro	Ala	Ser	Tyr	Met	Val	Pro	Ser	Ser	Ala	Ser	Thr
	115		120		125										
Ser	Val	Asn	Asn	Pro	Val	Ser	Gln	Thr	Pro	Ser	Ser	Gly	Gln	Val	Ile
	130		135		140										
Gln	Lys	Glu	Thr	Val	Gly	Gly	Thr	Thr	Tyr	Phe	Tyr	Thr	Asp	Thr	Thr
145			150		155									160	
Pro	Ala	Pro	Leu	Thr	Gly	Met	Val	Phe	Pro	Asn	Tyr	His	Ile	Tyr	Pro
			165		170									175	
Pro	Thr	Ala	Pro	His	Val	Ala	Tyr	Met	Gln	Pro	Lys	Ala	Asn	Ala	Pro
			180		185									190	
Ser	Phe	Phe	Met	Ala	Asp	Glu	Leu	Arg	Gln	Glu	Leu	Ile			
	195				200							205			

<210> 3577

<211> 1225

<212> DNA

<213> Homo sapiens

<400> 3577

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 120
 gtgattgggg agagcatgta cggggacttt gaggaagctt ttgaccatct gcagaacaga
 180
 ctgatcgcca ccaagaacctc agaagaaatc agaggcgggg gacttctcaa gtacagcaac
 240
 cttcttggtgc gggacttcag gccacagac caggaagaaa tcaaaactct agagcgctac
 300
 atgtgtccca gggttctcat cgacttcccg gacatccttg aacagcagag gaagtggag
 360
 acttaccttc aaaaccactt cgctgaagaa gagagaagca agtacgacta cctcatgatc
 420
 cttcgagggt tgggtgaacga gagcaccgtg tgtctcatgg ggcaggaacg caggcagact
 480
 ctgaacctca tctccctcct ggccttgctg gtgctgggag gaacaaaaca tcatcccca
 540
 gtgccaccaa ggtcacctgt tactaccagc ggtccctta gtcagtgatg gcaacttcag
 600
 caactactac gttgcccac ctcagtcac ctacagccag ccttaccta cctgggtgct
 660
 ctgtaactaa ccttgagacc tgagggtttc cacagtggga accccaatag ggctagggt
 720
 ctcaggtagg ggagctcctt ctgatgtag gcatttgact tttaaagggt aactcagctc
 780
 tgattctgct tttttttttt ttttctctt gtgtacccat tgggaatgggt ctacagtgt
 840
 tcatgagcca accctcaaag gacctgtatt acagtggcac gttggaaaac gctacaggaa
 900
 gcatgaccta tccacatctt tccaagatag acactaacat gtcagtgtcc aaacattagc
 960
 acgtgggggt tgagctctgt gcagtaatcg agattgggag aatttgggca gcgcgtgaga
 1020

agtgttaagc tacttggttt ctcacttgag cccgggtagg ctgtgttggc cctcacttgg
1080
gattctcage agttacatga aagttgtgct gataatctct tctcttgtag caattttagt
1140
caggcagaaa atggtaaaca tgagggtgct cttgtgactt aatttttggc caagggacta
1200
agttgcttat gtttattccc tgtca
1225

<210> 3578
<211> 195
<212> PRT
<213> Homo sapiens

<400> 3578
Val Asp Ser Ile Arg Arg Gln Phe Glu Phe Ser Val Asp Ser Phe Gln
1 5 10 15
Ile Ile Leu Asp Ser Leu Leu Phe Phe Tyr Asp Cys Ser Asn Asn Pro
20 25 30
Ile Ser Glu His Phe His Pro Thr Val Ile Gly Glu Ser Met Tyr Gly
35 40 45
Asp Phe Glu Glu Ala Phe Asp His Leu Gln Asn Arg Leu Ile Ala Thr
50 55 60
Lys Asn Pro Glu Glu Ile Arg Gly Gly Gly Leu Leu Lys Tyr Ser Asn
65 70 75 80
Leu Leu Val Arg Asp Phe Arg Pro Thr Asp Gln Glu Glu Ile Lys Thr
85 90 95
Leu Glu Arg Tyr Met Cys Ser Arg Phe Phe Ile Asp Phe Pro Asp Ile
100 105 110
Leu Glu Gln Gln Arg Lys Leu Glu Thr Tyr Leu Gln Asn His Phe Ala
115 120 125
Glu Glu Glu Arg Ser Lys Tyr Asp Tyr Leu Met Ile Leu Arg Arg Val
130 135 140
Val Asn Glu Ser Thr Val Cys Leu Met Gly His Glu Arg Arg Gln Thr
145 150 155 160
Leu Asn Leu Ile Ser Leu Leu Ala Leu Arg Val Leu Gly Gly Thr Lys
165 170 175
His His Pro Pro Val Pro Pro Arg Ser Pro Val Thr Thr Ser Gly Pro
180 185 190
Leu Ser Gln
195

<210> 3579
<211> 755
<212> DNA
<213> Homo sapiens

<400> 3579
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atcttgagaga tacacttctg gtcagaactc aggtgagata atcttgcaat actccaaatg
120
cagatactcc agccacccgc aaggttccag gaaaggacaa tgcctgcga gaaaatcagg
180

aggcctccac ttctggggcc acctgagaag ttcttgggca tgcactaca tgttggttga
240
ctcagccatt tctcatgctg ttttgtttct tgcggtggcc acttaacccc aaagaatgaa
300
gggaggatcc acagtgaag tgcctgagtt tctctatgag accagatgct gtcgaaacca
360
aacatctttt cctttgctct atgggaacat tttaggggtt gttttgcaca gctgggttcc
420
agactagaag attaacaagt ttgggtccac ccctaagaat cagtggctgt cttttaaggt
480
gaggagtgtg ggcttaactg aggtcctttg agggagctat aaaggagaaa caacctggga
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catcccagtt ttctattcc tccactgtta atatctcatc taaaataatt catgagttta
600
aatggtaaat atatgcttta agctctacct ttaaacttgt atgttattca ggcattctct
660
attaagatac tgggtctctg gataccaag gaaatgttgg ctttttattc ttatgtgggt
720
ccaaatttac ttctcttcag ttaattgtc catgg
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<210> 3580

<211> 121

<212> PRT

<213> Homo sapiens

<400> 3580

Met	Phe	Gly	Phe	Asp	Ser	Ile	Trp	Ser	His	Arg	Glu	Thr	Gln	Ala	Leu
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Ser	Leu	Trp	Ile	Leu	Pro	Ser	Phe	Phe	Gly	Val	Lys	Trp	Pro	Pro	Gln
			20					25					30		
Glu	Thr	Lys	Gln	His	Glu	Lys	Trp	Leu	Ser	Gln	Pro	Thr	Cys	Ser	Asp
			35					40					45		
Met	Pro	Arg	Asn	Phe	Ser	Ser	Gly	Pro	Gly	Ser	Gly	Gly	Leu	Leu	Ile
			50			55					60				
Phe	Ser	Gln	Asp	Ile	Val	Leu	Ser	Trp	Asn	Leu	Ala	Gly	Gly	Trp	Ser
65					70				75					80	
Ile	Cys	Ile	Trp	Ser	Ile	Ala	Arg	Leu	Ser	His	Leu	Ser	Ser	Asp	Gln
				85					90					95	
Lys	Cys	Ile	Ser	Lys	Ile	Ile	Thr	Ser	Thr	Lys	Thr	Ile	Ile	Asp	Cys
				100				105						110	
Glu	Gln	Thr	Phe	Ser	Val	Thr	Ser	Arg							
			115				120								

<210> 3581

<211> 2132

<212> DNA

<213> Homo sapiens

<400> 3581

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120

ggcgccctgct ggacttgtac tcggcgggcg agcagcgcg gtacgaggcg cgggaccgcg
180
gcegcctgga gctctcgcc tcggccttcg acgacggcaa cttctcgctg ctcatccgcg
240
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600
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660
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720
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780
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1080
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1560
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1680
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1740

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1800
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1860
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1920
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1980
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2132

<210> 3582
<211> 138
<212> PRT
<213> Homo sapiens

<400> 3582
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Pro Arg Thr Gly Cys Thr Thr Ala Ser Ala Cys Ser Thr Gly Thr Cys
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Ala Ala Pro Gly Val Ala Pro Arg Gly Ala Cys Trp Thr Cys Thr Arg
35 40 45
Arg Ala Ser Ser Ala Cys Thr Arg Arg Gly Thr Ala Ala Ala Trp Ser
50 55 60
Ser Arg Pro Arg Pro Ser Thr Thr Ala Thr Ser Arg Cys Ser Ser Ala
65 70 75 80
Arg Trp Arg Arg Arg Thr Arg Gly Cys Thr Pro Ala Thr Cys Thr Ile
85 90 95
Thr Thr Ala Thr Ser Thr Arg Ala Trp Pro Ser Ala Trp Arg Ser Pro
100 105 110
Thr Ala Pro Arg Pro Pro Pro Pro Thr Gly Thr Ala Arg Arg Arg Cys
115 120 125
Trp Arg Trp Arg Ala Ala His Pro Arg Phe
130 135

<210> 3583
<211> 1554
<212> DNA
<213> Homo sapiens

<400> 3583
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gagactctcc ccgagatctt ctagggagtg acccatctat ttttggttgg gaagaggaaa
120
ctccgaaatg ggatcgcgga agacttaaag ggccaggctg attttttttt cctactgcag
180
gtctctgagg ctgtgggtgc tacagggtca ccacgagctt ggcttacttg tctcatcctt
240

cccttgccctg gtatcatttt ctcagttctc ccaaaagcca tgcceggcc cttgtctatc
300
accttcaccc cagccactga cccagcgac ctctggaagg atgggcagca gcagccacag
360
cccagagaagc cagagtccac cctggatggg gctgcagccc gagctttcta tgaggccctg
420
attggggatg agagcagcgc tcctgactcc cagagatctc agactgaacc tgccagagaa
480
agaaagagaa agaaaagaag aataatgaag gcaccagcag cagaagcagt ggcagaagga
540
gcatcaggaa gacatggaca agggagatcc cttgaggctg aggataagat gactcaccgg
600
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<211> 356

<212> PRT

<213> Homo sapiens

<400> 3584

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Ala Arg Glu Arg Lys Arg Lys Lys Arg Arg Ile Met Lys Ala Pro Ala
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Ala Glu Ala Val Ala Glu Gly Ala Ser Gly Arg His Gly Gln Gly Arg
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Ser Leu Glu Ala Glu Asp Lys Met Thr His Arg Ile Leu Arg Ala Ala
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Gln Glu Gly Asp Leu Pro Glu Leu Arg Arg Leu Leu Glu Pro His Glu
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Thr Pro Leu Met Cys Ala Ala Arg Ala Gly Gln Gly Ala Ala Val Ser
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Tyr Leu Leu Gly Arg Gly Ala Ala Trp Val Gly Val Cys Glu Leu Ser
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Gly Arg Asp Ala Ala Gln Leu Ala Glu Glu Ala Gly Phe Pro Glu Val
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Ala Arg Met Val Arg Glu Ser His Gly Glu Thr Arg Ser Pro Glu Asn
195 200 205
Arg Ser Pro Thr Pro Ser Leu Gln Tyr Cys Glu Asn Cys Asp Thr His
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Phe Gln Asp Ser Asn His Arg Thr Ser Thr Ala His Leu Leu Ser Leu
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Ser Gln Gly Pro Gln Pro Pro Asn Leu Pro Leu Gly Val Pro Ile Ser
245 250 255
Ser Pro Gly Phe Lys Leu Leu Leu Arg Gly Gly Trp Glu Pro Gly Met
260 265 270
Gly Leu Gly Pro Arg Gly Glu Gly Arg Ala Asn Pro Ile Pro Thr Val
275 280 285
Leu Lys Arg Asp Gln Glu Gly Leu Gly Tyr Arg Ser Ala Pro Gln Pro
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Arg Val Thr His Phe Pro Ala Trp Asp Thr Arg Ala Val Ala Gly Arg
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<212> DNA
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<211> 663

<212> PRT

<213> Homo sapiens

<400> 3586

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Arg	Ser	Cys	Trp	Arg	Lys	Trp	Lys	Gln	Leu	Ser	Arg	Leu	Gln	Arg
		35					40				45			
Met	Ile	Leu	Phe	Leu	Leu	Ala	Phe	Leu	Leu	Phe	Cys	Gly	Leu	Phe
	50				55					60				
Tyr	Ile	Asn	Leu	Ala	Asp	His	Trp	Lys	Ala	Leu	Ala	Phe	Arg	Leu
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Glu	Glu	Gln	Lys	Met	Arg	Pro	Glu	Ile	Ala	Gly	Leu	Lys	Pro	Ala

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Pro Pro His Leu Gln Ile Arg Pro Pro Ser Gln Asp Leu Lys Asp Gly
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Thr Gln Glu Glu Ala Thr Lys Arg Gln Glu Ala Pro Val Asp Pro Arg
145 150 155 160
Pro Glu Gly Asp Pro Gln Arg Thr Val Ile Ser Trp Arg Gly Ala Val
165 170 175
Ile Glu Pro Glu Gln Gly Thr Glu Leu Pro Ser Arg Arg Ala Glu Val
180 185 190
Pro Thr Lys Pro Pro Leu Pro Pro Ala Arg Thr Gln Gly Thr Pro Val
195 200 205
His Leu Asn Tyr Arg Gln Lys Gly Val Ile Asp Val Phe Leu His Ala
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Trp Lys Gly Tyr Arg Lys Phe Ala Trp Gly His Asp Glu Leu Lys Pro
225 230 235 240
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<210> 3587

<211> 3148

<212> DNA

<213> Homo sapiens

<400> 3587

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<210> 3588

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3588

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			20				25					30			
Glu	Asp	Val	Gln	Glu	Glu	Thr	Gln	Leu	Asp	Leu	Ser	Gly	Asp	Ser	Val
			35				40					45			
Lys	Thr	Ile	Ala	Lys	Leu	Trp	Asp	Ser	Lys	Met	Phe	Ala	Glu	Ile	Met
			50				55				60				
Met	Lys	Ile	Glu	Glu	Tyr	Ile	Ser	Lys	Gln	Ala	Lys	Ala	Ser	Glu	Val
65					70				75					80	
Met	Gly	Pro	Val	Glu	Ala	Ala	Pro	Glu	Tyr	Arg	Val	Ile	Val	Asp	Ala
			85						90					95	
Asn	Asn	Leu	Thr	Val	Glu	Ile	Glu	Asn	Glu	Leu	Asn	Ile	Ile	His	Lys
			100						105					110	
Phe	Ile	Arg	Asp	Lys	Tyr	Ser	Lys	Arg	Phe	Pro	Glu	Leu	Glu	Ser	Leu
			115				120						125		
Val	Pro	Asn	Ala	Leu	Asp	Tyr	Ile	Arg	Thr	Val	Lys	Glu	Leu	Gly	Asn
			130				135					140			
Ser	Leu	Asp	Lys	Cys	Lys	Asn	Asn	Glu	Asn	Leu	Gln	Gln	Ile	Leu	Thr
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195 200 205
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225 230 235 240
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260 265 270
Tyr Ile Tyr His Ser Asp Ile Val Gln Ser Leu Pro Pro Asp Leu Arg
275 280 285
Arg Lys Ala Ala Arg Leu Val Ala Ala Lys Cys Thr Leu Ala Ala Arg
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385 390 395 400
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<211> 675
<212> DNA
<213> Homo sapiens

<400> 3589
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<210> 3590
<211> 117
<212> PRT
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<400> 3590
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35 40 45
Ser Ala Trp Pro Cys Leu Arg Ser Ser Ser Pro Pro Ala Ala Gln Gly
50 55 60
Ser Phe Val Ser Ala Gln Glu Gly Pro Tyr Asn Pro Ser Trp Leu Trp
65 70 75 80
Pro Gly Pro Cys Phe Val Ser Glu Leu Gly Gly Pro Ile Pro Lys His
85 90 95
Trp Leu Gly Asn Ser Tyr Pro Ile Cys Cys Leu Gly Ser Ala Trp Phe
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Phe Thr His Ile Ser
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<210> 3591
<211> 669
<212> DNA
<213> Homo sapiens

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180

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480
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<210> 3592

<211> 223

<212> PRT

<213> Homo sapiens

<400> 3592

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Lys	Gln	Val	Asn	Trp	Lys	Ala	Cys	Arg	Trp	Ser	Ser	Ser	Gly	Val	Ile
		35					40					45			
Pro	Asn	Glu	Lys	Ile	Arg	Asn	Ile	Gly	Ile	Ser	Ala	His	Ile	Asp	Ser
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Gly	Lys	Thr	Thr	Leu	Thr	Glu	Arg	Val	Leu	Tyr	Tyr	Thr	Gly	Arg	Ile
65				70					75				80		
Ala	Lys	Met	His	Glu	Val	Lys	Gly	Lys	Asp	Gly	Val	Gly	Ala	Val	Met
			85						90				95		
Asp	Ser	Met	Glu	Leu	Glu	Arg	Gln	Arg	Gly	Ile	Thr	Ile	Gln	Ser	Ala
		100						105					110		
Ala	Thr	Tyr	Thr	Met	Trp	Lys	Asp	Val	Asn	Ile	Asn	Ile	Ile	Asp	Thr
	115					120						125			
Pro	Gly	His	Val	Asp	Phe	Thr	Ile	Glu	Val	Glu	Arg	Ala	Leu	Arg	Val
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Leu	Asp	Gly	Ala	Val	Leu	Val	Leu	Cys	Ala	Val	Gly	Gly	Val	Gln	Cys
145				150						155				160	
Gln	Thr	Met	Thr	Val	Asn	Arg	Gln	Met	Lys	Arg	Tyr	Asn	Val	Pro	Phe
			165					170						175	
Leu	Thr	Phe	Ile	Asn	Lys	Leu	Asp	Arg	Met	Gly	Ser	Asn	Pro	Ala	Arg
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<210> 3593
<211> 1005
<212> DNA
<213> Homo sapiens

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240
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420
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<210> 3594
<211> 282
<212> PRT
<213> Homo sapiens

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35 40 45
Arg Leu Leu Gly Ala Leu Cys Leu Gln Arg Pro Pro Val Val Ser Lys

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Pro Leu Thr	Pro Leu Gln Glu Glu Met Ala Ser	Leu Leu Gln Gln Ile
65	70	75
Glu Ile Glu Arg Ser	Leu Tyr Ser Asp His Glu Leu Arg Ala Leu Asp	80
85	90	95
Glu Asn Gln Arg Leu Ala Lys Lys Lys Ala Asp	Leu His Asp Glu Glu	
100	105	110
Asp Glu Gln Asp Ile Leu Leu Ala Gln Asp Leu Glu Asp Met Trp Glu		
115	120	125
Gln Lys Phe Leu Gln Phe Lys Leu Gly Ala Arg Ile Thr Glu Ala Asp		
130	135	140
Glu Lys Asn Asp Arg Thr Ser Leu Asn Arg Lys Leu Asp Arg Asn Leu		
145	150	155
Val Leu Leu Val Arg Glu Lys Phe Gly Asp Gln Asp Val Trp Ile Leu		
165	170	175
Pro Gln Ala Glu Trp Gln Pro Gly Glu Thr Leu Arg Gly Thr Ala Glu		
180	185	190
Arg Thr Leu Ala Thr Leu Ser Glu Asn Asn Met Glu Ala Lys Phe Leu		
195	200	205
Gly Asn Ala Pro Cys Gly His Tyr Thr Phe Lys Phe Pro Gln Ala Met		
210	215	220
Arg Thr Glu Ser Asn Leu Gly Ala Lys Val Phe Phe Phe Lys Ala Leu		
225	230	235
Leu Leu Thr Gly Asp Phe Ser Gln Ala Gly Asn Lys Gly His His Val		
245	250	255
Trp Val Thr Lys Asp Glu Leu Gly Asp Tyr Leu Lys Pro Lys Tyr Leu		
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<210> 3595

<211> 1903

<212> DNA

<213> Homo sapiens

<400> 3595

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<210> 3596

<211> 496

<212> PRT

<213> Homo sapiens

<400> 3596

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Gln Met Leu Ala Gln Tyr Ile Glu Ser Phe Thr Gln Gly Ser Ile Glu			
35	40	45	
Ala His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro Ile			
50	55	60	
Val Glu Ser Tyr Ile Gly Phe Ile Glu Ser Tyr Arg Asp Pro Phe Gly			
65	70	75	80
Ser Arg Gly Glu Phe Glu Gly Phe Val Ala Val Val Asn Lys Ala Met			
85	90	95	
Ser Ala Lys Phe Glu Arg Leu Val Ala Ser Ala Glu Gln Leu Lys			
100	105	110	
Glu Leu Pro Trp Pro Pro Thr Phe Glu Lys Asp Lys Phe Leu Thr Pro			
115	120	125	
Asp Phe Thr Ser Leu Asp Val Leu Thr Phe Ala Gly Ser Gly Ile Pro			
130	135	140	
Ala Gly Ile Asn Ile Pro Asn Tyr Asp Asp Leu Arg Gln Thr Glu Gly			
145	150	155	160
Phe Lys Asn Val Ser Leu Gly Asn Val Leu Ala Val Ala Tyr Ala Thr			
165	170	175	
Gln Arg Glu Lys Leu Thr Phe Leu Glu Glu Asp Asp Lys Asp Leu Tyr			
180	185	190	
Ile Leu Trp Lys Gly Pro Ser Phe Asp Val Gln Val Gly Leu His Glu			
195	200	205	
Leu Leu Gly His Gly Ser Gly Lys Leu Phe Val Gln Asp Glu Lys Gly			
210	215	220	
Ala Phe Asn Phe Asp Gln Glu Thr Val Ile Asn Pro Glu Thr Gly Glu			
225	230	235	240
Gln Ile Gln Ser Trp Tyr Arg Ser Gly Glu Thr Trp Asp Ser Lys Phe			
245	250	255	
Ser Thr Ile Ala Ser Ser Tyr Glu Glu Cys Arg Ala Glu Ser Val Gly			
260	265	270	
Leu Tyr Leu Cys Leu His Pro Gln Val Leu Glu Ile Phe Gly Phe Glu			
275	280	285	
Gly Ala Asp Ala Glu Asp Val Ile Tyr Val Asn Trp Leu Asn Met Val			
290	295	300	
Arg Ala Gly Leu Leu Ala Leu Glu Phe Tyr Thr Pro Glu Ala Phe Asn			
305	310	315	320
Trp Arg Gln Ala His Met Gln Ala Arg Phe Val Ile Leu Arg Val Leu			
325	330	335	
Leu Glu Ala Gly Glu Gly Leu Val Thr Ile Thr Pro Thr Thr Gly Ser			
340	345	350	
Asp Gly Arg Pro Asp Ala Arg Val Arg Leu Asp Arg Ser Lys Ile Arg			
355	360	365	
Ser Val Gly Lys Pro Ala Leu Glu Arg Phe Leu Arg Arg Leu Gln Val			
370	375	380	
Leu Lys Ser Thr Gly Asp Val Ala Gly Gly Arg Ala Leu Tyr Glu Gly			
385	390	395	400
Tyr Ala Thr Val Thr Asp Ala Pro Pro Glu Cys Phe Leu Thr Leu Arg			
405	410	415	
Asp Thr Val Leu Leu Arg Lys Glu Ser Arg Lys Leu Ile Val Gln Pro			
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Asn Thr Arg Leu Glu Gly Asn Gly Ser Asp Val Gln Leu Leu Glu Tyr			

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						Arg
						Ser
						Phe
						Ser
						Glu
						Arg
						Phe
						Pro
	450		455		460	
Glu	Asp	Gly	Pro	Glu	Leu	Glu
						Ile
						Leu
						Thr
						Gln
						Leu
						Ala
						Thr
						Ala
465			470		475	480
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						Pro
						Ser
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						Gln
						Ala
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<211> 1090

<212> DNA

<213> Homo sapiens

<400> 3597

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<210> 3598

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3598

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 35           40           45
Pro Lys Thr Ala Leu Pro Phe Asn Arg Phe Leu Pro Asn Lys Ser Arg
 50           55           60
Gln Pro Ser Tyr Val Pro Ala Pro Leu Arg Lys Lys Lys Pro Asp Lys
 65           70           75           80
His Glu Asp Asn Arg Arg Ser Trp Ala Ser Pro Val Tyr Thr Glu Ala
 85           90           95
Asp Gly Thr Phe Ser Arg Ser Lys Ser Met Ser Asp Val Ser Ala Glu
100          105          110
Asp Val Gln Asn Leu Arg Gln Leu Arg Tyr Glu Glu Met Gln Lys Ile
115          120          125
Lys Ser Gln Leu Lys Glu Gln Asp Gln Lys Trp Gln Asp Asp Leu Ala
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<212> DNA

<213> Homo sapiens

<400> 3599

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691

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<212> PRT
<213> Homo sapiens

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35 40 45
Pro Arg Pro Leu Ser Val Pro Ile Glu His Leu Leu Gly Ala Lys Asn
50 55 60
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<212> DNA
<213> Homo sapiens

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2460
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2580
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2640
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2700
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2760
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2820
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2880
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2940
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2963

<210> 3602

<211> 299

<212> PRT

<213> Homo sapiens

<400> 3602

Pro	Glu	Asp	Glu	Arg	Gly	Ser	Ala	Val	Ala	Arg	Ala	Arg	Gly	Arg	Gly
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Ser	Arg	Ser	Pro	Leu	Cys	Gly	Arg	Tyr	Met	Ser	Gln	Ser	Lys	His	Thr
			20					25					30		
Glu	Ala	Arg	Glu	Leu	Met	Tyr	Ser	Gly	Ala	Leu	Leu	Phe	Phe	Ser	His
			35					40				45			
Gly	Gln	Gln	Asn	Ser	Ala	Ala	Asp	Leu	Ser	Met	Leu	Val	Leu	Glu	Ser
			50			55					60				
Leu	Glu	Lys	Ala	Glu	Val	Glu	Val	Ala	Asp	Glu	Leu	Leu	Glu	Asn	Leu
65					70				75					80	
Ala	Lys	Val	Phe	Ser	Leu	Met	Asp	Pro	Asn	Ser	Pro	Glu	Arg	Val	Thr
			85					90						95	
Phe	Val	Ser	Arg	Ala	Leu	Lys	Trp	Ser	Ser	Gly	Gly	Ser	Gly	Lys	Leu
			100					105						110	
Gly	His	Pro	Arg	Leu	His	Gln	Leu	Leu	Ala	Leu	Thr	Leu	Trp	Lys	Glu
			115				120						125		
Gln	Asn	Tyr	Cys	Glu	Ser	Arg	Tyr	His	Phe	Leu	His	Ser	Ala	Asp	Gly
			130				135					140			
Glu	Gly	Cys	Ala	Asn	Met	Leu	Val	Glu	Tyr	Ser	Thr	Ser	Arg	Gly	Phe
145					150					155				160	
Arg	Ser	Glu	Val	Asp	Met	Phe	Val	Ala	Gln	Ala	Val	Leu	Gln	Phe	Leu
				165					170					175	
Cys	Leu	Lys	Asn	Lys	Ser	Ser	Ala	Ser	Val	Val	Phe	Thr	Thr	Tyr	Thr
			180					185						190	
Gln	Lys	His	Pro	Ser	Ile	Glu	Asp	Gly	Pro	Pro	Phe	Val	Glu	Pro	Leu

195 200 205
Leu Asn Phe Ile Trp Phe Leu Leu Leu Ala Val Asp Gly Gly Lys Leu
210 215 220
Thr Val Phe Thr Val Leu Cys Glu Gln Tyr Gln Pro Ser Leu Arg Arg
225 230 235 240
Asp Pro Met Tyr Asn Glu Tyr Leu Asp Arg Ile Gly Gln Leu Phe Phe
245 250 255
Gly Val Pro Pro Lys Gln Thr Ser Ser Tyr Gly Gly Leu Leu Gly Asn
260 265 270
Leu Leu Thr Ser Leu Met Gly Ser Ser Glu Gln Glu Asp Gly Glu Glu
275 280 285
Ser Pro Ser Asp Gly Ser Pro Ile Glu Leu Asp
290 295

<210> 3603

<211> 1082

<212> DNA

<213> Homo sapiens

<400> 3603

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120
agagagccga tgatttttaa atgtgtgttt gtgggtgaaa tggctgcgca ggtcggagcg
180
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240
ctcatgctg ggggtctccc gcggggagtt aaacggcagc gccgatctag cagtgggggg
300
tctcaggaga agcggggggc gccgagccag gagccccctc tcgctcccc tcaccggcgg
360
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420
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cccgtgtctg ctgccccctt cccggcccca agcaccggc cctcttcacc ttctgcctc
540
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600
accaccggc cccgatggt gatcccagct cctgcggaac cgatctcaag cacaaggaca
660
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720
caccagatga aaatggtaaa acccagagag ccgatgattt tgtcttgaag aaaataaaga
780
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840
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900
gacaaataaa tagcacttca ggacttaata aggagtcctt caggtatctg aaagatgaac
960
agctgtgccg attaaatttg ggtatgcaag aatatcgggt accccaggga gtacaaacac
1020

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1080
tt
1082

<210> 3604
<211> 146
<212> PRT
<213> Homo sapiens

<400> 3604
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Val Gly Glu Met Ala Ala Gln Val Gly Ala Val Arg Val Val Arg Ala
20 25 30
Val Ala Ala Gln Glu Glu Pro Asp Lys Glu Gly Lys Glu Lys Pro His
35 40 45
Ala Gly Val Ser Pro Arg Gly Val Lys Arg Gln Arg Arg Ser Ser Ser
50 55 60
Gly Gly Ser Gln Glu Lys Arg Gly Arg Pro Ser Gln Glu Pro Pro Leu
65 70 75 80
Ala Pro Pro His Arg Arg Arg Ser Arg Gln His Pro Gly Pro Leu
85 90 95
Pro Pro Thr Asn Ala Ala Pro Thr Val Pro Gly Pro Val Glu Pro Leu
100 105 110
Leu Leu Pro Pro Pro Pro Pro Pro Ser Leu Ala Pro Ala Gly Pro Ala
115 120 125
Val Ala Ala Pro Leu Pro Ala Pro Ser Thr Arg Pro Ser Ser Pro Ser
130 135 140
Arg Leu
145

<210> 3605
<211> 2004
<212> DNA
<213> Homo sapiens

<400> 3605
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cagcgtgtgg agggcaagct gcgcgccagc gtcgagaagg gcgactacta cgaggcgcac
120
cagatgtacc ggaccctgtt cttcaggtac atgtcccaga gcaagcacac ggaggcccgg
180
gagctcatgt actcgggagc cctgctcttc ttcagccatg gccagcaaaa cagtgcagca
240
gacttgcca tgctggcctt ggagtccctg gagaaggcgg aagtggaggt ggctgacgag
300
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360
acctttgtgt ccagagccct gaagtgggtc agtgggggct ccgggaagct gggccacccc
420
cggctgcacc agctgctggc cctcacctg tggaaagaac aaaactattg tgagtcgagg
480

tatcattttc tgcactcagc ggacggggag ggctgtgcca acatgctggt ggagtattcc
540
acgtcccgcg gcttccgcag cgaggtggac atgttcgtgg ctccaggccgt gctacagttt
600
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660
ccgtccatcg aggacgggccc tccgtttgtg gagccgctgc ttaacttcat ctggttctctg
720
ctgctggctg tggacgggtg gaagctgacg gtgttccactg tgctgtgtga gcagtaccag
780
ccatccctcc ggcgggaccc catgtacaac gactacctcg accgcatagg acagtgttc
840
ttcggcgccc cgcccaagca gacgtcttcc tacggggggc tgctcgggaa ccttctgacc
900
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960
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1860
aatgacagtt gtagattgat acgcagttgt gcatgggaag gggaaacgca cagctttatt
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1980
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2004

<210> 3606

<211> 324

<212> PRT

<213> Homo sapiens

<400> 3606

Xaa Arg Arg Arg Trp Pro Ser Arg Arg Ala Pro Ala Thr Ala Ala Gln
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Pro Arg Gly Val Gln Arg Val Glu Gly Lys Leu Arg Ala Ser Val Glu
20 25 30
Lys Gly Asp Tyr Tyr Glu Ala His Gln Met Tyr Arg Thr Leu Phe Phe
35 40 45
Arg Tyr Met Ser Gln Ser Lys His Thr Glu Ala Arg Glu Leu Met Tyr
50 55 60
Ser Gly Ala Leu Leu Phe Phe Ser His Gly Gln Gln Asn Ser Ala Ala
65 70 75 80
Asp Leu Ser Met Leu Val Leu Glu Ser Leu Glu Lys Ala Glu Val Glu
85 90 95
Val Ala Asp Glu Leu Leu Glu Asn Leu Ala Lys Val Phe Ser Leu Met
100 105 110
Asp Pro Asn Ser Pro Glu Arg Val Thr Phe Val Ser Arg Ala Leu Lys
115 120 125
Trp Ser Ser Gly Gly Ser Gly Lys Leu Gly His Pro Arg Leu His Gln
130 135 140
Leu Leu Ala Leu Thr Leu Trp Lys Glu Gln Asn Tyr Cys Glu Ser Arg
145 150 155 160
Tyr His Phe Leu His Ser Ala Asp Gly Glu Gly Cys Ala Asn Met Leu
165 170 175
Val Glu Tyr Ser Thr Ser Arg Gly Phe Arg Ser Glu Val Asp Met Phe
180 185 190
Val Ala Gln Ala Val Leu Gln Phe Leu Cys Leu Lys Asn Lys Ser Ser
195 200 205
Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro Ser Ile Glu
210 215 220
Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile Trp Phe Leu
225 230 235 240
Leu Leu Ala Val Asp Gly Gly Lys Leu Thr Val Phe Thr Val Leu Cys
245 250 255
Glu Gln Tyr Gln Pro Ser Leu Arg Arg Asp Pro Met Tyr Asn Glu Tyr
260 265 270
Leu Asp Arg Ile Gly Gln Leu Phe Phe Gly Val Pro Pro Lys Gln Thr
275 280 285
Ser Ser Tyr Gly Gly Leu Leu Gly Asn Leu Leu Thr Ser Leu Met Gly
290 295 300
Ser Ser Glu Gln Glu Asp Gly Glu Glu Ser Pro Ser Asp Gly Ser Pro
305 310 315 320
Ile Glu Leu Asp

<210> 3607

<211> 1726

<212> DNA

<213> Homo sapiens

<400> 3607

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120
accctgtgtg ctgggatatg cagctatgaa ggggaagggtg gaatgtgttc catccgtctc
180
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240
atgatacatg cctattttatt tgtcactaat aacgacaaag accgagaagg gcatgggtcca
300
gaattttgta aacatatgca tcgcatcaac agcctgactg gagccaatat aacggtatac
360
catacttttc acgatgaggt ggatgagtat cggcgacact ggtggcgctg caatggggccg
420
tgccagcaca ggccaccgta ttacggctat gtcaaacgag ctactaacag ggaaccctct
480
gctcatgact attggtgggc tgagcaccag aaaacctgtg gaggcactta cataaaaatc
540
aaggaaccag agaattactc aaaaaaggc aaaggaaagg caaaactagg aaaggaacca
600
gtattggccg cagagaataa agataaaccc aacagagggtg agggccagct agtaatccct
660
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720
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780
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840
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900
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1380
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1440
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1560
gtgctacatt cactcttgcc ttaggtatac tgtaaccag gttctgcctg tcgtgtataa
1620

tttttagata cttttgttct ttcttgcctc taaggatttt aaaaacctgt taatcttttt
1680
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1726

<210> 3608
<211> 436
<212> PRT
<213> Homo sapiens

<400> 3608
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Phe Val Gln Phe Asn Asp Gln Phe Phe Trp Gly Gln Leu Glu Ala Val
20 25 30
Glu Val Lys Trp Ser Val Arg Met Thr Leu Cys Ala Gly Ile Cys Ser
35 40 45
Tyr Glu Gly Lys Gly Gly Met Cys Ser Ile Arg Leu Ser Glu Pro Leu
50 55 60
Leu Lys Leu Arg Pro Arg Lys Asp Leu Val Glu Thr Leu Leu His Glu
65 70 75 80
Met Ile His Ala Tyr Leu Phe Val Thr Asn Asn Asp Lys Asp Arg Glu
85 90 95
Gly His Gly Pro Glu Phe Cys Lys His Met His Arg Ile Asn Ser Leu
100 105 110
Thr Gly Ala Asn Ile Thr Val Tyr His Thr Phe His Asp Glu Val Asp
115 120 125
Glu Tyr Arg Arg His Trp Trp Arg Cys Asn Gly Pro Cys Gln His Arg
130 135 140
Pro Pro Tyr Tyr Gly Tyr Val Lys Arg Ala Thr Asn Arg Glu Pro Ser
145 150 155 160
Ala His Asp Tyr Trp Trp Ala Glu His Gln Lys Thr Cys Gly Gly Thr
165 170 175
Tyr Ile Lys Ile Lys Glu Pro Glu Asn Tyr Ser Lys Lys Gly Lys Gly
180 185 190
Lys Ala Lys Leu Gly Lys Glu Pro Val Leu Ala Ala Glu Asn Lys Asp
195 200 205
Lys Pro Asn Arg Gly Glu Ala Gln Leu Val Ile Pro Phe Ser Gly Lys
210 215 220
Gly Tyr Val Leu Gly Glu Thr Ser Asn Leu Pro Ser Pro Gly Lys Leu
225 230 235 240
Ile Thr Ser His Ala Ile Asn Lys Thr Gln Asp Leu Leu Asn Gln Asn
245 250 255
His Ser Ala Asn Ala Val Arg Pro Asn Ser Lys Ile Lys Val Lys Phe
260 265 270
Glu Gln Asn Gly Ser Ser Lys Asn Ser His Leu Val Ser Pro Ala Val
275 280 285
Ser Asn Ser His Gln Asn Val Leu Ser Asn Tyr Phe Pro Arg Val Ser
290 295 300
Phe Ala Asn Gln Lys Ala Phe Arg Gly Val Asn Gly Ser Pro Arg Ile
305 310 315 320
Ser Val Thr Val Gly Asn Ile Pro Lys Asn Ser Val Ser Ser Ser
325 330 335
Gln Arg Arg Val Ser Ser Ser Lys Ile Ser Leu Arg Asn Ser Ser Lys

340 345 350
Val Thr Glu Ser Ala Ser Val Met Pro Ser Gln Asp Val Ser Gly Ser
355 360 365
Glu Asp Thr Phe Pro Asn Lys Arg Pro Arg Leu Glu Asp Lys Thr Val
370 375 380
Phe Asp Asn Phe Phe Ile Lys Lys Glu Gln Ile Lys Ser Ser Gly Asn
385 390 395 400
Asp Pro Lys Tyr Ser Thr Thr Thr Ala Gln Asn Ser Ser Ser Ser Ser
405 410 415
Ser Gln Ser Lys Met Val Asn Cys Pro Val Cys Gln Asn Glu Val Leu
420 425 430
Gly Val Ser Asp
435

<210> 3609
<211> 1286
<212> DNA
<213> Homo sapiens

<400> 3609
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120
tgcgtaacc agtgggagca gctgaggggg ccgggtggca acgaggatgg gccacagaag
180
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240
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300
gcagacaagt tcctgcagct gntttggaac caaagggtgc aagaggggtc tgtgtcctat
360
caannctacc cctgtcgcc caccgccttc acccattgtg agcaggtgct gggcgagggc
420
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780
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960
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1020

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1080
gacccccaga ccctgttccc ctgcagacct cacttctggg agacagagct acagctggga
1140
cagctccaag ctaccctaac ccttcctttc ccaggtttct agaatagtgt ctggcatgta
1200
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1260
ccgctaattt agtagtagta gtaggc
1286

<210> 3610

<211> 268

<212> PRT

<213> Homo sapiens

<400> 3610

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Gly	Gly	Asn	Glu	Asp	Gly	Pro	Gln	Lys	Leu	Asp	Leu	Glu	Ala	Asp	Ala
		20					25					30			
Glu	Pro	Gln	Asp	Leu	Glu	Ser	Thr	Asn	Leu	Leu	Glu	Ser	Glu	Ala	Pro
		35					40					45			
Arg	Asp	Tyr	Phe	Leu	Lys	Phe	Ala	Tyr	Ile	Val	Asp	Leu	Asp	Ser	Asp
	50				55						60				
Thr	Ala	Asp	Lys	Phe	Leu	Gln	Leu	Xaa	Trp	Asn	Gln	Arg	Cys	Gln	Glu
65				70					75					80	
Gly	Ala	Val	Ser	Tyr	Gln	Xaa	Tyr	Pro	Leu	Ser	Pro	Thr	Arg	Phe	Thr
			85					90						95	
His	Cys	Glu	Gln	Val	Leu	Gly	Glu	Gly	Ala	Leu	Asp	Arg	Gly	Thr	Tyr
		100						105					110		
Tyr	Trp	Glu	Val	Glu	Ile	Ile	Glu	Gly	Trp	Val	Ser	Met	Gly	Val	Met
	115						120					125			
Ala	Ala	Asp	Phe	Ser	Pro	Gln	Glu	Pro	Tyr	Asp	Arg	Gly	Arg	Leu	Gly
	130					135				140					
Arg	Asn	Ala	His	Ser	Cys	Cys	Leu	Gln	Trp	Asn	Gly	Arg	Ser	Phe	Ser
145				150						155				160	
Val	Trp	Phe	His	Gly	Leu	Glu	Ala	Pro	Leu	Pro	His	Pro	Phe	Ser	Pro
			165					170						175	
Thr	Val	Gly	Val	Cys	Leu	Glu	Tyr	Ala	Asp	Arg	Ala	Leu	Ala	Phe	Tyr
	180							185					190		
Ala	Val	Arg	Asp	Gly	Lys	Met	Ser	Leu	Leu	Arg	Arg	Leu	Lys	Ala	Ser
	195					200						205			
Arg	Pro	Arg	Arg	Gly	Gly	Ile	Pro	Ala	Ser	Pro	Ile	Asp	Pro	Phe	Gln
	210					215					220				
Ser	Arg	Leu	Asp	Ser	His	Phe	Ala	Gly	Leu	Phe	Thr	His	Arg	Leu	Lys
225				230						235				240	
Pro	Ala	Phe	Phe	Leu	Glu	Ser	Val	Asp	Ala	His	Leu	Gln	Ile	Gly	Pro
			245					250						255	
Leu	Lys	Lys	Ser	Cys	Ile	Ser	Val	Leu	Lys	Arg	Arg				
		260						265							

<210> 3611

<211> 816

<212> DNA

<213> Homo sapiens

<400> 3611

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120
caatggagac agttggaaaa cctgtacttc agagaaaaga agttttccgt ggaagttcat
180
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240
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300
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360
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660
cccattgttc ggagaagaat aggaacagcc ttcaaatgg atgaacagaa aatcctgccc
720
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<210> 3612

<211> 272

<212> PRT

<213> Homo sapiens

<400> 3612

Tyr Gly Val His Tyr Tyr Ala Val Lys Asp Lys Gln Gly Ile Pro Trp
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35 40 45
Tyr Phe Arg Glu Lys Lys Phe Ser Val Glu Val His Asp Pro Arg Arg
50 55 60
Ala Ser Val Thr Arg Arg Thr Phe Gly His Ser Gly Ile Ala Val His
65 70 75 80
Thr Trp Tyr Ala Cys Pro Ala Leu Ile Lys Ser Ile Trp Ala Met Ala
85 90 95
Ile Ser Gln His Gln Phe Tyr Leu Asp Arg Lys Gln Ser Lys Ser Lys
100 105 110
Ile His Ala Ala Arg Ser Leu Ser Glu Ile Ala Ile Asp Leu Thr Glu

115 120 125
Thr Gly Thr Leu Lys Thr Ser Lys Leu Ala Asn Met Gly Ser Lys Gly
130 135 140
Lys Ile Ile Ser Gly Ser Ser Gly Ser Leu Leu Ser Ser Gly Ser Gln
145 150 155 160
Glu Ser Asp Ser Ser Gln Ser Ala Lys Lys Asp Met Leu Ala Ala Leu
165 170 175
Lys Ser Arg Gln Glu Ala Leu Glu Glu Thr Leu Arg Gln Arg Leu Glu
180 185 190
Glu Leu Lys Lys Leu Cys Leu Arg Glu Ala Glu Leu Thr Gly Lys Leu
195 200 205
Pro Val Glu Tyr Pro Leu Asp Pro Gly Glu Glu Pro Pro Ile Val Arg
210 215 220
Arg Arg Ile Gly Thr Ala Phe Lys Leu Asp Glu Gln Lys Ile Leu Pro
225 230 235 240
Lys Gly Glu Glu Ala Glu Leu Glu Arg Leu Glu Arg Glu Phe Ala Ile
245 250 255
Gln Ser Gln Ile Thr Glu Ala Ala Arg Arg Leu Ala Ser Asp Pro Asn
260 265 270

<210> 3613

<211> 659

<212> DNA

<213> Homo sapiens

<400> 3613

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240
tactgtatct agtgcttctg ctcttatctt caatcgtggg gttcttttta atgcaaagt
300
tcacaaggcc aggaattccc atgtgtgctc agttggccca cagcatcatt gtgcctagga
360
aactgcttca atttatcaag tcctctgggc tgggaatctc actgaattcc aaacggcgga
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480
gtcccagagc acaccgtccc cctttaacag caactggagc ttggattcgc tcttatattg
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tacagtcctt tcgaccattg ccctggagca cccgcacacg cgcacgcac tccggccgcg
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659

<210> 3614

<211> 123

<212> PRT

<213> Homo sapiens

<400> 3614
Met Gln Ser Val Thr Arg Pro Gly Ile Pro Met Cys Ala Gln Leu Ala
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His Ser Ile Ile Val Pro Arg Lys Leu Leu Gln Phe Ile Lys Ser Ser
20 25 30
Gly Leu Gly Ile Ser Leu Asn Ser Lys Arg Arg Lys Glu Glu Thr Phe
35 40 45
Pro Thr Arg Cys Gly Cys Asp Ala Ser Gln Gly Pro Gln Gly His Cys
50 55 60
Pro Arg Ala His Arg Pro Pro Leu Thr Ala Thr Gly Ala Trp Ile Arg
65 70 75 80
Ser Tyr Ile Val Gln Ser Phe Arg Pro Leu Pro Trp Ser Thr Arg Thr
85 90 95
Arg Ala Arg Ile Ser Gly Arg Ala His Thr His Ser Tyr Thr Arg Thr
100 105 110
Gln Thr Arg Ser Glu Lys Ser Pro Pro Pro Pro
115 120

<210> 3615
<211> 1388
<212> DNA
<213> Homo sapiens

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120
cagtcctccgc gagtccagat gcctgtccag cctccaagca aagacacaga agagatggaa
180
gcagaggggtg attctgctgc tgagatgaat ggggaggagg aagagagtga ggaggagcgg
240
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300
cgacgccgca gcgagtgtgt cagtgcagat ctggacctag agaagcagtt ctcggagcta
360
aaggagaagt tgttcaggga acgactgagt cagctgcggt tgcggctgga ggaagtgggg
420
gctgagagag cccctgaata cacggagccc cttggggggc tgcagcggag cctcaagatt
480
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540
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600
acgctgcagg gggagctgca ggagcggatc cagaggctgg aggaggaccg ccagagcctg
660
gacctcagct ctgaatgggtg ggacgacaaa ctgcacgcca gaggcagctc caggtcttgg
720
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780
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840
gctgtgtccc ctcagaagag aaaatcggat gacaggcgga cccacaggcc cctcagggtc
900

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1020
gcaaggctgc tgtctccatc cctgagccgc ctgccacctc ccactcctga agatccatct
1080
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1140
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1200
agtcagacgt gattatctgg gggctctgtcc accctggctg gatctggagg caagatgcca
1260
ggccccccag gtgttctcag ggcagttctt ggtgtctgct tctcagattc caaggactgg
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1380
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1388

<210> 3616

<211> 290

<212> PRT

<213> Homo sapiens

<400> 3616

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Gly	Asp	Ser	Ala	Ala	Glu	Met	Asn	Gly	Glu	Glu	Glu	Glu	Ser	Glu	Glu
			20				25						30		
Glu	Arg	Ser	Gly	Ser	Gln	Thr	Glu	Ser	Glu	Glu	Glu	Ser	Ser	Glu	Met
			35			40						45			
Asp	Asp	Glu	Asp	Tyr	Glu	Arg	Arg	Arg	Ser	Glu	Cys	Val	Ser	Glu	Met
			50			55					60				
Leu	Asp	Leu	Glu	Lys	Gln	Phe	Ser	Glu	Leu	Lys	Glu	Lys	Leu	Phe	Arg
65					70				75					80	
Glu	Arg	Leu	Ser	Gln	Leu	Arg	Leu	Arg	Leu	Glu	Glu	Val	Gly	Ala	Glu
			85						90					95	
Arg	Ala	Pro	Glu	Tyr	Thr	Glu	Pro	Leu	Gly	Gly	Leu	Gln	Arg	Ser	Leu
			100					105					110		
Lys	Ile	Arg	Ile	Gln	Val	Ala	Gly	Ile	Tyr	Lys	Gly	Phe	Cys	Leu	Asp
			115				120					125			
Val	Ile	Arg	Asn	Lys	Tyr	Glu	Cys	Glu	Leu	Gln	Gly	Ala	Lys	Gln	His
			130			135					140				
Leu	Glu	Ser	Glu	Lys	Leu	Leu	Tyr	Asp	Thr	Leu	Gln	Gly	Glu	Leu	
145				150				155						160	
Gln	Glu	Arg	Ile	Gln	Arg	Leu	Glu	Glu	Asp	Arg	Gln	Ser	Leu	Asp	Leu
			165					170						175	
Ser	Ser	Glu	Trp	Trp	Asp	Asp	Lys	Leu	His	Ala	Arg	Gly	Ser	Ser	Arg
			180				185						190		
Ser	Trp	Asp	Ser	Leu	Pro	Pro	Ser	Lys	Arg	Lys	Lys	Ala	Pro	Leu	Val
		195				200						205			
Ser	Gly	Pro	Tyr	Ile	Val	Tyr	Met	Leu	Gln	Glu	Ile	Gly	Ile	Leu	Glu
		210			215						220				
Asp	Trp	Thr	Ala	Ile	Lys	Lys	Ala	Arg	Ala	Ala	Val	Ser	Pro	Gln	Lys

225 230 235 240
 Arg Lys Ser Asp Asp Arg Arg Thr His Arg Pro Leu Arg Val Cys Pro
 245 250 255
 Ala Arg Leu Leu Trp Cys Cys Trp Ala Leu Pro Leu His Leu Ala Leu
 260 265 270
 Ala Trp Thr Pro Pro Leu Pro Ser Ser Arg Pro Ala Gln Leu Trp Pro
 275 280 285
 Trp Ser
 290

<210> 3617
 <211> 804
 <212> DNA
 <213> Homo sapiens

<400> 3617
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 120
 aggatgggat ggtagtagtg aaggacatag gatgggggta gagtgtggag actttttgaa
 180
 atagtataga tgaatgccct gaggggactg tgaacaagct ctgcccctct taggaaatca
 240
 atggggaatc aactaaatta aataaaaaat ggggtcaaga ttaagaggca gggtcaccca
 300
 gggaatgggt taggtcctgg catctttgaa ggggttgga gggctggcag gaggcactga
 360
 gggccctggg ccctgggcca ggtgggtgaat tacagcgact cacggacagc agaagagatc
 420
 tgtgagagca gctccaagat gatcaccttc atcgacctgg caggccacca taagtacct
 480
 cacaccacca tctttggcct cacatcatac tgccccgact gcgccttget cctcgtcagt
 540
 gccaaacttg ggattgctgg caccacaagg gaacatctgg ggctggccct ggccctgaaa
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 660
 acagtacgcc agctggagcg ggtcctcaag cagcctggct gccacaaggt ccccatgctg
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 780
 acccccatct tcacattgtc cagt
 804

<210> 3618
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 3618
 Gly Pro Trp Ala Leu Gly Gln Val Val Asn Tyr Ser Asp Ser Arg Thr
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 Ala Glu Glu Ile Cys Glu Ser Ser Ser Lys Met Ile Thr Phe Ile Asp

20 25 30
Leu Ala Gly His His Lys Tyr Leu His Thr Thr Ile Phe Gly Leu Thr
35 40 45
Ser Tyr Cys Pro Asp Cys Ala Leu Leu Leu Val Ser Ala Asn Thr Gly
50 55 60
Ile Ala Gly Thr Thr Arg Glu His Leu Gly Leu Ala Leu Ala Leu Lys
65 70 75 80
Val Pro Phe Phe Ile Val Val Ser Lys Ile Asp Leu Cys Ala Lys Thr
85 90 95
Thr Val Glu Arg Thr Val Arg Gln Leu Glu Arg Val Leu Lys Gln Pro
100 105 110
Gly Cys His Lys Val Pro Met Leu Val Thr Ser Glu Asp Asp Ala Val
115 120 125
Thr Ala Ala Gln Gln Phe Ala Gln Ser Pro Asn Val Thr Pro Ile Phe
130 135 140
Thr Leu Ser Ser
145

<210> 3619
<211> 948
<212> DNA
<213> Homo sapiens

<400> 3619
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ctttctcctt agagatcaga tgcggaact ccagctgagg gcatgtctta ctgggcacgc
120
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180
ctcaggatgc ccatagggat ggggtgaagcc tgcctggcct gtggtgcttt ccagtggccg
240
tcattctcatt agggcccccac agtggcatta ggatgcacct ctggcggtg ttcaacgcgc
300
tcctggtgtc ggtgtgtgca gcggtcctgt ggaagcatgt gcggctgctg gacatgcag
360
ccacactgga ggaggagctg gccctcagcc gacaggccac agagccagcc ccagcactga
420
ggatcgacta cccgaaggca ctgcagatcc tgatggaggg cggcacacac atggtgtgca
480
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540
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660
tcaacttcgt ggagctgctt gctgtgtccc tgcgcttcat gcccaagccg gtgttcgtgc
720
cagacgtggc cctcatcgcc aaccgttca accccgacaa cctcatgcac gtctttcatg
780
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840
ggctcttctt catggagggc tggggcgagg gtgcacactt cgacctctac aagctgtctc
900

gcccgaagca gcctctcctg cgggcacagc tgaagaccct gggccggc
948

<210> 3620
<211> 159
<212> PRT
<213> Homo sapiens

<400> 3620
Trp Arg Ala Ala His Thr Trp Cys Ala Arg Ala Ala Arg Thr Gln Thr
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Ala Ser Ala Ala Ser Ser Gly Ser Ala Thr Pro Thr Arg Leu Arg Ser
20 25 30
Ser Ser Ser Ser Met Ala Thr Pro Leu Ser Cys Cys Pro Thr Trp Ala
35 40 45
Pro Gly Ala Ser Ser Gln Pro Cys Ser Thr Tyr Pro Pro Trp Arg Thr
50 55 60
Thr Thr Leu Ser Thr Ser Thr Ser Trp Ser Cys Leu Leu Leu Pro Cys
65 70 75 80
Ala Ser Cys Pro Ser Arg Cys Ser Cys Gln Thr Trp Pro Ser Ser Pro
85 90 95
Thr Ala Ser Thr Pro Thr Thr Ser Cys Thr Ser Phe Met Thr Thr Cys
100 105 110
Cys His Ser Ser Thr Pro Cys Gly Ser Phe Pro Ala Trp Pro Thr Arg
115 120 125
His Gly Ser Ser Ser Trp Arg Ala Gly Ala Arg Val His Thr Ser Thr
130 135 140
Ser Thr Ser Cys Ser Ala Pro Ser Ser Leu Ser Cys Gly His Ser
145 150 155

<210> 3621
<211> 2934
<212> DNA
<213> Homo sapiens

<400> 3621
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120
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180
ccttaattgg gcttgacgtg ctaaaaagca gatcggttctc tctgaggttt tcccaacagt
240
acctcaagaa aataacatct gttttttgta acgttccaca gtattcggaa ttggctacag
300
aacataataa gatccttgcc agcacattac agaataatttt tgttgaacct tcttgagaat
360
tcagagaaac tgctgagtga cactgaacg aaaagatcta atcttaaggc ttacgcgtgt
420
tccatccacc acatcagaac aatgtcgtat gtttttgtaa atgattcttc tcagactaac
480
gtgcccttgc tgcaagcctg tattgatggg gactttaatt attccaagcg gcttttggaa
540

agtggctttg acccaaatat tcgtgacagc aggggcagaa caggccttca ccttgacagca
600
gctcgaggga atgtagacat ctgccagtta ctgcataaat tcggtgccga tcttctggcc
660
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720
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780
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1020
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1140
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1380
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1620
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1980
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2040
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2100
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2160

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2220
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2280
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2460
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2520
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2934

<210> 3622

<211> 228

<212> PRT

<213> Homo sapiens

<400> 3622

Met	Ser	Tyr	Val	Phe	Val	Asn	Asp	Ser	Ser	Gln	Thr	Asn	Val	Pro	Leu
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Leu	Gln	Ala	Cys	Ile	Asp	Gly	Asp	Phe	Asn	Tyr	Ser	Lys	Arg	Leu	Leu
			20				25					30			
Glu	Ser	Gly	Phe	Asp	Pro	Asn	Ile	Arg	Asp	Ser	Arg	Gly	Arg	Thr	Gly
			35				40					45			
Leu	His	Leu	Ala	Ala	Ala	Arg	Gly	Asn	Val	Asp	Ile	Cys	Gln	Leu	Leu
			50				55				60				
His	Lys	Phe	Gly	Ala	Asp	Leu	Leu	Ala	Thr	Asp	Tyr	Gln	Gly	Asn	Thr
					70					75				80	
Ala	Leu	His	Leu	Cys	Gly	His	Val	Asp	Thr	Ile	Gln	Phe	Leu	Val	Ser
			85					90					95		
Asn	Gly	Leu	Lys	Ile	Asp	Ile	Cys	Asn	His	Gln	Gly	Ala	Thr	Pro	Leu
			100					105				110			
Val	Leu	Ala	Lys	Arg	Arg	Gly	Val	Asn	Lys	Asp	Val	Ile	Arg	Leu	Leu
			115				120					125			
Glu	Ser	Leu	Glu	Glu	Gln	Glu	Val	Lys	Gly	Phe	Asn	Arg	Gly	Thr	His
			130				135				140				
Ser	Lys	Leu	Glu	Thr	Met	Gln	Thr	Ala	Glu	Ser	Glu	Ser	Ala	Met	Glu
					150					155				160	
Ser	His	Ser	Leu	Leu	Asn	Pro	Asn	Leu	Gln	Gln	Gly	Glu	Gly	Val	Leu

2778

165 170 175
Ser Ser Phe Arg Thr Thr Trp Gln Glu Phe Val Glu Asp Leu Gly Phe
180 185 190
Trp Arg Val Leu Leu Leu Ile Phe Val Ile Ala Leu Leu Ser Leu Gly
195 200 205
Ile Ala Tyr Tyr Val Ser Gly Val Leu Pro Phe Val Glu Asn Gln Pro
210 215 220
Glu Leu Val His
225

<210> 3623

<211> 586

<212> DNA

<213> Homo sapiens

<400> 3623

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120
ggcagcaaaa tgtgggcaca gcgccatgtc tgggttctgc agctgtttga tgatcctctt
180
gcggaatttc tccctcacac gattaaattc cattatgtcc atgggggtcct cttegatcca
240
aaacttatga aattcatgca tcaaatagca gaatgtttgc tgaaagttag acaatgttgg
300
agcttctggg gcgatattgt agaaatgggt ttttagagct ccgctgacca gtagattata
360
tgccagggtca gttatattga tgcccacaat tgcaaatagag tacccaattg ccttatccat
420
ccttttcttc tccattctg ctttcttgaa tttgcttatt tcttcttttag tgatatccct
480
gcatttcgga tgaagagagt cagacaggac ctgctgagct gctgtggcat ccctttccgc
540
gaaatactgc aaattgtaca gtcccagaag tccattcct cgaaag
586

<210> 3624

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3624

Met Gly Leu Leu Gly Leu Tyr Asn Leu Gln Tyr Phe Ala Glu Arg Asp
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Ala Thr Ala Ala Gln Gln Val Leu Ser Asp Ser Leu His Pro Lys Cys
20 25 30
Arg Asp Ile Thr Lys Glu Glu Ile Ser Lys Phe Ser Lys Ala Glu Trp
35 40 45
Glu Lys Lys Arg Met Asp Lys Ala Ile Gly Tyr Ser Phe Ala Ile Val
50 55 60
Gly Ile Asn Ile Thr Asp Leu Ala Tyr Asn Leu Leu Val Ser Gly Ala
65 70 75 80
Leu Lys Thr His Phe Tyr Asn Ile Ala Pro Glu Ala Pro Thr Leu Ser

	85		90		95										
His	Phe	Gln	Gln	Thr	Phe	Cys	Tyr	Leu	Met	His	Glu	Phe	His	Lys	Phe
		100						105					110		
Trp	Ile	Glu	Glu	Asp	Pro	Met	Asp	Ile	Met	Glu	Phe	Asn	Arg	Val	Arg
		115						120					125		
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<211> 551

<212> PRT

<213> Homo sapiens

<400> 3626

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